ARMY INFORMATION DIGEST

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CONTENTS

TEAMWORK FOR DEFENSE

President Truman signs the National Security Act Amendments as Secretary of Defense Johnson and other members of the National Security Organization look on.

STRENGTHENING THE DEFENSE TEAM

By

THE HONORABLE LOUIS JOHNSON

Secretary of Defense

WE have an Army, a Navy, and an Air Force worthy of our country and the pride of every American citizen. They are getting better every day—stronger and more efficient. Moreover, they are rounding themselves into one team, a team that will make all enemies stop, look and listen before attempting aggression across our tracks.

The ever closer unification of that team is the responsibility now of the Department of Defense, imposed on it by the will of our people. The path has not been easy, but we are well on our way. Eighty per cent of the problems that had beset unification immediately disappeared when the President signed the bill increasing the authority and the responsibility of the Secretary of Defense for unification. The job goes on apace.

The cost of our Armed Forces comes high; too high in fact. We are determined to cut it at the rate of about a billion dollars this year. That reduction in cost will not come at the expense of the men in the service. On the contrary, they deserve a raise, and we have urged the Congress to give it to them. To recruit and keep men of high quality they must be paid as adequately as possible, bearing in mind that the kind of men we need, both commissioned and enlisted, can get in civil life salaries far in excess even of what we can hope to set up in our new pay schedules.

Nor do we plan to save money at the expense of quality in weapons or equipment. Our planes, our ships, our tanks, our rifles, our radio sets—every item on our shopping list—must be superior to what any other nation can put into the

Based on an address by the Secretary of Defense before the American Legion Convention, Philadelphia.

hands of its fighting forces. The goal of high quality weapons in the hands of high quality men, let me assure you, is the aim of all the procurement agencies of the Department of Defense.

We are going to make the saving by eliminating waste and duplication. We have declared war on these two enemies of efficiency and we will wage it with vigor and determination.

Here are just a few of the things we have done already:

We have defined the military roles and missions of the three services and assigned to each what it is best organized, trained and equipped to do.

We have established unified commands around the world. The Army, the Navy, and the Air Force are under an Army general in the Caribbean, an Air Force general in Alaska, and an admiral in the Pacific.

We have educated officers of the three services in combined courses at the National War College, the Industrial College of the Armed Forces, the Armed Forces Information School, and others. We are working on changes in the curriculum at West Point and at Annapolis which will provide more uniform education in the service academies, and which will stress the goals of unification. Every year, West Point cadets and Annapolis midshipmen take training courses together. Every year we are holding maneuvers in which all three services take part.

We are simplifying procedures. When we come before the Congress today our budget represents a coordinated, integrated estimate of the needs of the Department of Defense as a whole. There is not enough taxpayers' money available to give each of the three services everything that each of them feels it may need. Since we cannot have everything we want, we figure out what we need most and trust that our experience and our knowledge of world conditions have led us to the proper decisions. At best, we are engaging in a calculated risk, but the kind of risk that all prudent men must take when they venture into the unknown.

When we ask for legislation, or when the Congress refers bills to us for report, one agency in my office acts as the central point of contact for all. Also, we have a consolidated public information office for the entire Defense Establishment and a single press room for all the services.

We have hired a group of preeminent civilian consultants in business management to show us where and how to effect

economies and obtain increased efficiency in operations. We have abolished 134 committees and boards; and the job is not yet over. There are needs for both committees and boards in good business administration; but government by committee too often means an excuse for delay and lack of responsibility, while boards usually live up to their description by that Army wit, who once said that a board is something long, narrow, and wooden.

We are evaluating the weapons and the systems of attack and defense of the three services and bringing them into a cohesive whole. We are determined to maintain our margin of superiority in production and development of weapons and equipment. We have a Research and Development Board to integrate the efforts of all services.

We are combining facilities and services wherever possible and are taking advantage of specialized abilities and techniques developed in the respective services. The Army buys the food and trucks for all. The Navy gets the coal and oil, and roasts the coffee for all. The Air Force obtains photographic material for the Army and the Navy.

At a most opportune time, we combined the operations of the Air Transport Command of the United States Air Force and the Naval Air Transport Service. We set up the consolidated Military Air Transport Service under the Air Force Chief of Staff, just before the need for extensive operations arose. The success of the Berlin Airlift could never have been possible without the combined Military Air Transport Service. Now we are effecting the same kind of consolidation in sea transport, where we have turned the job over to the Navy. The Army will have responsibility for land transport.

We have set up uniform standards and programs to improve the medical services and to attract promising civilian doctors. We have arranged for more equitable distribution of medical personnel by transferring officers from the Army and Navy to the United States Air Force. We have closed some hospitals, reduced the scope of others, and in many cases have arranged for joint staffs, when joint use of facilities was being made. Much is yet to be done.

We have set up a Civilian Components Policy Board to develop overall policies and to assign clearly defined missions to the National Guard and the Reserve, and among all the Reserve components of the Army, Navy (including the Marine Corps) and the Air Force.

And here are some more things that we are working on:

A personnel policy that will assure equal treatment and equal opportunities for all men in uniform;

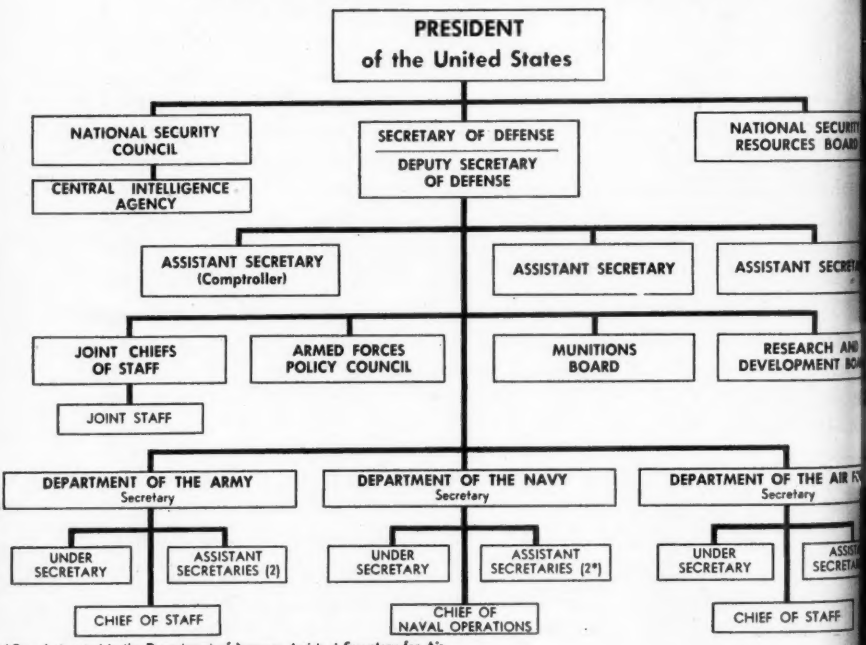
A job classification system for all services, which will result in better assignment of men to duties for which they are particularly qualified, with pay and rank commensurate with the job and its responsibilities;

A study of the better use of chaplains in all three services. I believe that when men of God are needed to minister to men's souls there should be no occasion to ascertain the color of the chaplain's uniform.

By saving money on defense expenditures, unification will serve to strengthen our national economic structure, which is still one of the principal bulwarks for peace. By increasing service efficiency, unification will make us better prepared for any emergency.

Only if we are strongly prepared can we hope to have peace in the atmosphere of the world of today.

ORGANIZATION FOR NATIONAL DEFENSE



*One designated in the Department of Navy as Assistant Secretary for Air.

NATIONAL DEFENSE ORGANIZATION

Harris & Ewing

ICE PRESIDENT OF
E UNITED STATES

The Honorable
Alben W. Barkley

NATIONAL SECURITY COUNCIL

Permanent members of the National Security Council are: The President; the Vice President (shown left); the Secretary of State (right); the Secretary of Defense; and the Chairman, National Security Resources Board. Optional members may be the Secretaries and Under Secretaries of other Executive departments and of the military departments; the Chairman, Munitions Board; and the Chairman, Research and Development Board.

N. Y. Times

SECRETARY OF STATE

The Honorable
Dean Acheson

Harris & Ewing

CTING CHAIRMAN
ATIONAL SECURITY
ESOURCES BOARD

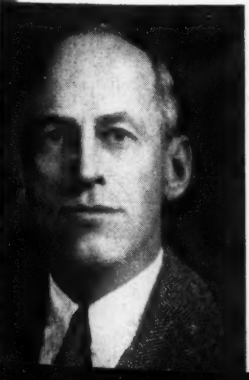
John R. Steelman

EXECUTIVE SECRETARY
NATIONAL SECURITY
COUNCIL

Sidney W. Souers

DIRECTOR, CENTRAL
INTELLIGENCE AGENCY

Rear Admiral Roscoe H.
Hillenkoetter

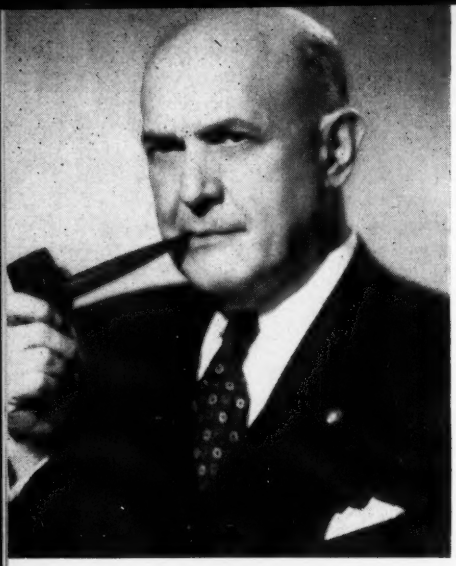


IN THE CONGRESS

While not members of the National Security Organization (an organization within the Executive department of the Government), Senator Millard Tydings (left) and Representative Carl Vinson (right), Chairmen of the Armed Services Committees of the Senate and of the House of Representatives respectively, contribute understanding leadership for military legislation in the Congress.

Harris & Ewi

DEPARTM D



SECRETARY OF DEFENSE
The Honorable Louis Johnson

ASSISTANT SECRETARY
(ADMIN. & PUBLIC AFFAIRS)
Hon. Paul H. Griffith

ASSISTANT SECRETARY
(LEGAL & LEGISLATIVE AFFAIRS)
Hon. Marx Leva

ASSISTANT SECRETARY
(COMPTROLLER)
Hon. W. J. McNeil

This office is currently responsible for the Military Assistance Program, the Office of Foreign Military Affairs, and Domestic Security. The latter includes Internal Security, Civil Defense, and Defense Against Unconventional Forms of Warfare.

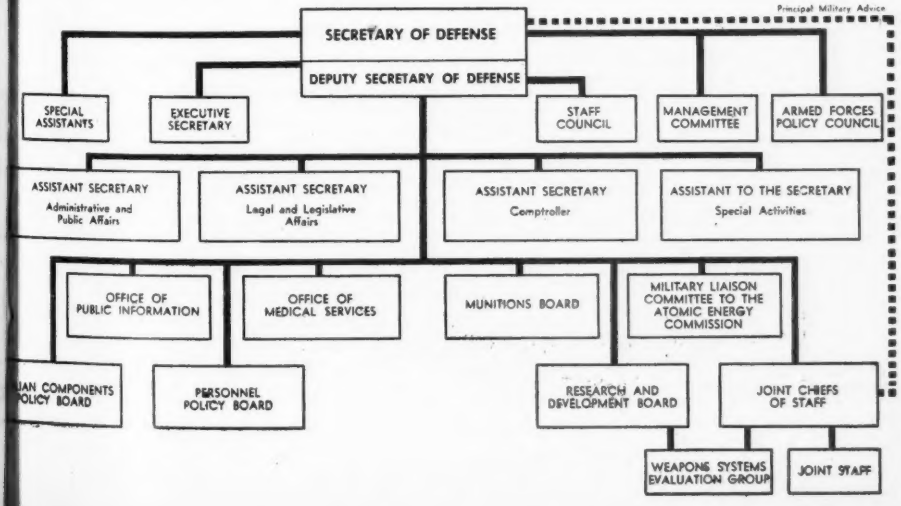
ASST. TO THE SECRETARY
(SPECIAL ACTIVITIES)
(VACANT)

MF DEFENSE

DEPUTY
SECRETARY OF DEFENSE
Hon. Stephen T. Early

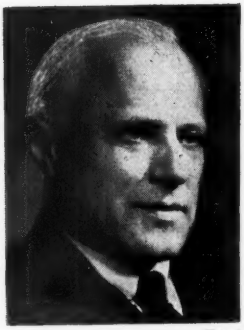
CHAIRMAN, NAT. DEF.
MANAGEMENT COMMITTEE
Gen. Joseph T. McNarney

ORGANIZATION OF THE OFFICE OF THE SECRETARY OF DEFENSE



Fabian Bachrach

Chairman, Joint
Chiefs of Staff
GENERAL OMAR N. BRADLEY



Karsh

Chairman, Research &
Development Board
DR. KARL T. COMPTON

Director, Joint Staff
REAR ADMIRAL
ARTHUR C. DAVIS

Director, Weapons
Systems Eval. Group
LT. GEN. JOHN E. HULL

ARMED FORCES POLICY COUNCIL

The Armed Forces Policy Council, designed to advise the Secretary of Defense on broad policy matters, is composed of: the Secretary of Defense, Chairman; the Deputy Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; the Chairman of the Joint Chiefs of Staff; the Army Chief of Staff, the Chief of Naval Operations, and the Air Force Chief of Staff.

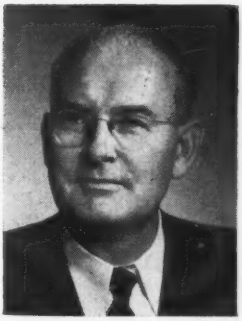
Shown in session; opposite, left to right: Lt. Gen. Lutes, then Director of Staff, Munitions Board; General Vandenberg; Secretary Symington; General Collins; Secretary Gray; Deputy Secretary Early; General McNarney; Secretary Johnson; Under Secretary Kimball; Admiral Denfeld (seated behind); General Bradley; Mr. Souers; Dr. Rinehart, Executive Secretary, Research and Development Board; Mr. Reid, then Chairman, Personnel Policy Board; Major General Gruenther, then Director, Joint Staff.

Data in this section corrected to 30 September 1949. Unless otherwise credited, all illustrations in this section are official Defense Establishment photographs.

SOAFFS--OSD

Chairman, Personnel Policy Board
HUBERT E. HOWARD

Chairman Munitions Board
(VACANT)



Karsh

Chairman, Civilian Components Policy Board
WILLIAM T. FARICY

Director, Office of Medical Services
RICHARD L. MEILING, M.D.

Director, Office of Public Information
WILLIAM FRYE

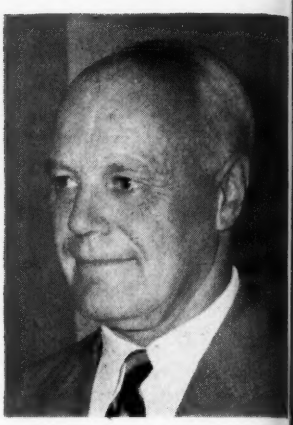
Underwood

Chairman, Military Liaison Comm to Atomic Energy Comm
ROBERT LEBARON

ARMED FORCES POLICY COUNCIL IN SESSION

THE ARMY TEA

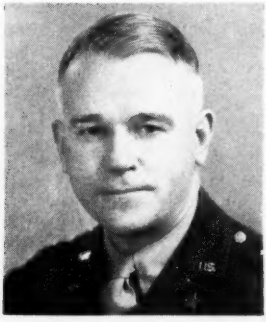
SECRETARY OF THE ARMY
The Honorable Gordon Gray



UNDER SECRETARY OF
THE ARMY
Hon. Tracy S. Voorhees

ASSISTANT SECRETARY
OF THE ARMY
Hon. Archibald S. Alexander

ASSISTANT SECRETARY
OF THE ARMY
(Vacant)

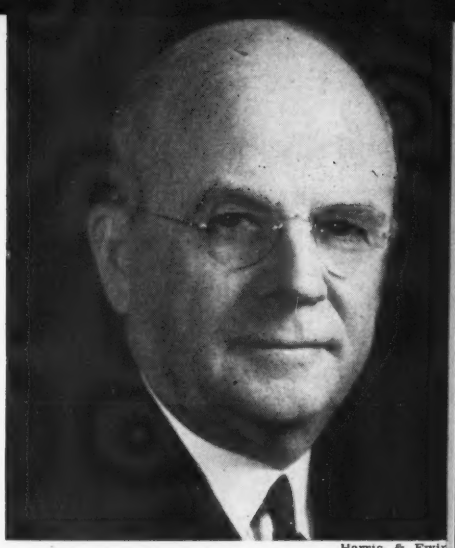


CHIEF OF STAFF
General J. Lawton Collins

VICE CHIEF OF STAF
Lieutenant General Wa
H. Haislip

THE NAVY TEAM

UNDER SECRETARY OF THE NAVY
Hon. Dan A. Kimball



Harris & Ewing

SECRETARY OF THE NAVY
The Honorable Francis P. Matthews

ASSISTANT SECRETARY OF THE NAVY
Hon. John T. Koehler

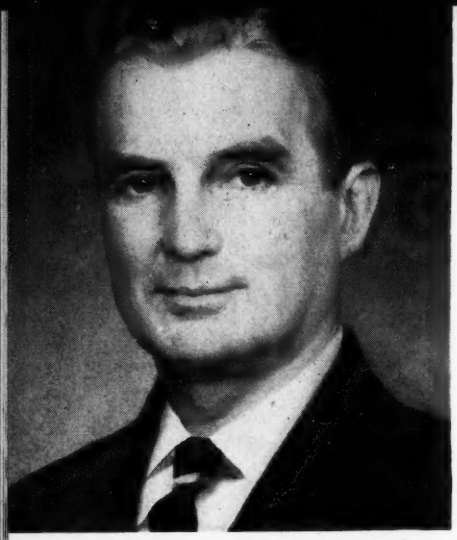
ASSISTANT SECRETARY OF THE NAVY FOR AIR
(Vacant)

CHIEF OF NAVAL OPERATIONS
Admiral Louis E. Denfeld

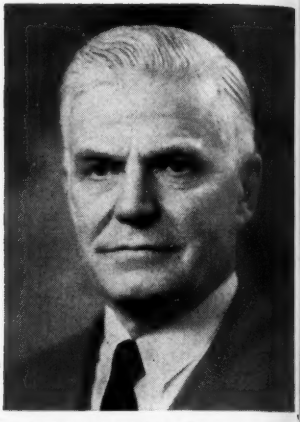
VICE CHIEF OF NAVAL OPERATIONS
Vice Admiral John Dale Price

COMMANDANT UNITED STATES MARINE CORPS
General Clifton B. Cates

AIR FORCE TEA



SECRETARY OF THE AIR FORCE
The Honorable W. Stuart Symington



UNDER SECRETARY OF THE AIR FORCE
Hon. Arthur S. Barrows

Harris & Ewing
ASSISTANT SECRETARY OF THE AIR FORCE
Hon. Eugene M. Zuckert

ASSISTANT SECRETARY OF THE AIR FORCE
(Vacant)

CHIEF OF STAFF
General Hoyt S. Vandenberg

VICE CHIEF OF STAFF
General Muir S. Fairchild

Reprints of this section available on request to the Editor.

HOW GERMAN EXPERTS AID OUR RESEARCH

By

MAJOR ROBERT A. CARR

THE date 1 September 1939—a fateful day in history! Headlines heralded: GERMAN ARMY ATTACKS POLAND; CITIES BOMBED, PORT BLOCKADED; DANZIG ACCEPTED INTO REICH.

On the day when Dr. Wolfgang Finkelnburg read the official Nazi report of this latest "liberation" move of *Der Fuehrer*, he was an Associate Professor of Physics at Darmstadt Technical Institute. Drafted into the *Luftwaffe* as a meteorologist, with technical rank comparable to major, he was early released from service. Throughout the war, however, he continued as a consultant to the Air Ministry on searchlight development.

Like many educated and informed Germans, Dr. Finkelnburg was skeptical of victory for the Third Reich—even as he read of the Nazi blitz rolling over the Polish plains. A graduate of Bonn University, Dr. Finkelnburg also taught physics at the Universities of Karlsruhe and Strasbourg. In 1933-34, he had become familiar with the life of scientists in a democracy when, as a fellow of the Rockefeller Foundation, he did research at California Institute of Technology. During his stay in the United States, he toured through thirty states. This gave him an opportunity to compare the tremendous industrial reserves of this country with the meager resources of Germany.

By 1 September 1949—ten years after Hitler's attack on Poland—many changes had been wrought in the life of Dr. Finkelnburg. Now 44, he lives with his wife and two-year-old son at Fort Belvoir, where he is employed by the United States Government as a research expert in light and radiation sources.

MAJOR ROBERT A. CARR, Inf., is on the staff of the Security Review Branch, Office of Public Information, Department of Defense. He was formerly Public Information Officer for the Department of the Army on Project Paperclip.

He also is a research consultant on atomic physics; and his textbook on the subject is currently on the press of a leading American publisher.

Dr. Finkelnburg's activities in the field of pure science are not confined to the seclusion of the laboratories at Fort Belvoir. During the past two years he has lectured at Ohio State, New York and Northwestern Universities; Massachusetts Institute of Technology, Bell Telephone and Brookhaven National Laboratories; and before the Society of Motion Picture Engineers. For many months, he has carried a heavy schedule of classes, teaching atomic physics in extension classes conducted by Catholic University at Fort Belvoir.

Dr. Finkelnburg is only one of about 500 outstanding German scientists and technical experts whose talents are being utilized by the United States, to help maintain our position of world leadership in scientific research and development. Under this far-reaching program, known as Project Paperclip, German experts are brought to the United States. Here they are provided with facilities for research in electronics, supersonics, guided missiles and jet propulsion. They pioneer in the vast realms of chemistry, physics, metallurgy, engineering, synthetic fuels, environmental protection, and the like. Some are doing advanced work in medicine, including the design of artificial limbs and prosthetic appliances. Nearly all of the technical services of the Armed Forces are now employing these scientists; and a few have been made available to civilian industry.

Among Dr. Finkelnburg's associates at the Engineer Research and Development Laboratories are Dr. Alexander Smakula, a specialist on optics, formerly with the Zeiss Company; Dr. Werner K. Weihe, electronics researcher who was formerly chief of the Zeiss electrotechnical laboratories; and Dr. George Hass, formerly on the faculty of the Technical University of Danzig, who is now doing research in optics and in other aspects of physics.

Although the idea of capitalizing on the knowledge and skills of German scientists had been conceived early in World War II, it was not until the summer of 1945 that a firm plan could be put into operation. However, immediately after VE day, we acquired our first German experts by chance, as part of a drama that had the earmarks of a movie thriller.

In obedience to Allied orders, Nazi submarines in every sector of the the world were to surface, report their positions,

and display a black flag in token of surrender. Among the submarines docking at the Portsmouth (New Hampshire) Navy Yard was the U-234, one of Germany's largest U-boats, a minelayer of the latest type. Here was a haul! This sub was not on an ordinary errand. She carried Hitler's last, most valuable gift to his Japanese ally. Her compartments were filled with treasure—platinum and mercury, blueprints by the thousands, samples of the newest electronic tubes and other inventions, uranium oxide of a high degree of purity, and a rich human cargo—ten of Germany's leading scientific and technical experts.

It was intended that these men should carry on in Japan the newest research projects which the increasing fury of the war had prevented Germany from realizing. The group included Lieutenant General Ulric Kessler, the former head of the *Luftwaffe Flieger Korps;* Dr. Gerhardt Falck, one of the top designers in the German Bureau of Ships; and August Bringewald, the star production engineer of the Messerschmitt Works, carrying with him blueprints which would enable him to set up a complete plant for construction of the latest Messerschmitt jet aircraft in Japan.

Some of these men were placed on special military projects, and later were returned to Germany. Several are still employed at Army, Navy, and Air Force research centers, where they continue their work under Government supervision. Today, Bringewald is employed at Wright-Patterson Air Force Base, and Dr. Falck has returned to Germany.

Among the cream of German scientists now working for the Armed Forces are the former director of Germany's air-to-ground and ground-to-air missiles projects; eminent V-2 and remote control specialists; the former research directors for Junkers and Zeiss; and some of Germany's leading parachute experts and aeronautical engineers.

From the beginning, the process of screening German scientists for admission to this country has been thorough. Even before the European phase of World War II ended, technical teams of the military services were surveying major plants and research organizations in Germany. They catalogued the names of thousands of Germans engaged in research; and they forwarded many thousands of scientific documents and reports to Washington for study by our technical experts. Commercial teams followed the military, analyzing the progress of German commercial research, locating the leading experts. Finally,

a panel of top-notch German specialists was assembled and was directed by the Theater Commander to compile a list of all German scientists and technical specialists. This roster contained the names of 24,000 Germans, ranging from world-acknowledged experts to lesser technical specialists.

From all these sources, the military services, in cooperation with other interested Government agencies, made the final selection. The dominant factor in each case was the ability of the scientist to make an "otherwise unobtainable" contribution to American military research and development. Every using agency was required to certify that the skills and experience offered by the German could not be obtained from an available American scientist.

Specialists who later were found to be incapable of making the contribution expected of them were returned promptly to Germany. So thorough was the selective process, however, that only a handful have fallen in this category.

In selecting qualified scientists, the most detailed security precautions are taken. The political records of these Paperclip specialists must pass close scrutiny before they may leave Germany. No war criminals or ardent Nazis may be brought in under the program.

Upon arrival in this country, the specialists have no United States citizenship, but are aliens under military custody. Those who desire to remain may apply for immigration visas. After a lengthy period of investigation, those who are found qualified may be recommended for formal admission into the United States under the immigration laws. This means merely that they may be granted visas for legal entry. From that point on, they are in the same status as any other immigrants, and must follow the normal naturalization procedures in order to secure American citizenship.

A total of 480 of the scientists have been recommended for immigration visas and, of these, 250 have been granted visas, as of September 1949. The privilege of bringing dependents to the United States has been granted only after months of careful observation, and after it is determined beyond a doubt that the scientist is not a security threat.

All scientists are employed on a voluntary contract basis. Salaries range from a low of about $3000 a year to a top of $9975, with a rough average of $5000. Paperclip specialists are not employed under Civil Service. However, Civil Service standards and ratings are used as a rough basis for deter-

mining salaries, which are generally slightly lower than Civil Service pay in the same grades.

All research and development activities by the German scientists are coordinated by the Research and Development Board, operating under the Secretary of Defense. Administration of the Paperclip program is supervised by the Joint Intelligence Objectives Agency, which operates under the Joint Chiefs of Staff. Hundreds of millions of dollars and from two to ten years of research time, it is estimated, have been saved by the program. Out of the experience of the German scientists has come a knowledge of the many blind alleys to be avoided, thus narrowing the fields to be explored.

Gradually the scientists are fitting themselves into the American scientific world. Potent factors in their adjustment are the welcome they receive, as professional equals, from American scientists, and the privilege of writing for United States scientific and trade journals and of lecturing before scientific societies.

Inevitably, however, each faces a crucial personal problem—whether to continue this effort toward adjustment, while assisting this country in its military research and development, or to look forward to a return to Germany. The problems facing Dr. Finkelnburg are typical. In March of this year he was granted a visa which makes him a legal immigrant, eligible to apply for citizenship. He is now employed on a year-to-year contract basis. In the past year, he has received attractive offers from German universities to return to the field of teaching, which he loves. He already has built up substantial pension rights in Europe, which he will forfeit if he does not return. His relatives and his wife's relatives all live in Germany. As a scientist engaged in fundamental research he expects that eventually he will seek employment at an American university, if he remains here. The big question which Dr. Finkelnburg must answer is whether the United States or Germany offers the most of life's tangible and intangible rewards to him, his wife, and his young son.

Similar decisions must be made by many other distinguished German scientists who are now working for the U. S. Government. In the shaping of these decisions, the American people, by their expression of friendliness and cooperation, will have a voice.

TRIPLE R HELPS EUCOM PAY ITS WAY

By

BERNARD J. QUINN

THE mine-smashed jeep—a mass of quivering wreckage that was dragged from the line of advance outside Aachen—is back in service; but you wouldn't recognize her. Her underpinnings and motor block come from a jeep that plunged off a demolished span near Regensburg. Her drive shaft, clutch and differential were part of another vehicle that forged up the Rhone Valley in the invasion of Southern France. Two wheels and a bumper were originally part of a jeep that survived the saturation bombing of St. Lô.

Today, rolling along the *autobahn*, pert and trim and businesslike, wearing a new coat of paint and new seat cushions and outfitted with a two-way radio, she purrs smoothly about her business, bearing Constabulary troopers on patrol. She's a product of plastic surgery, to be sure; but she is also a symbol of a far ranging Triple R program—Rebuild, Reclaim, and Repair—that is helping the European Command to supply its equipment needs from its own back yard, at an annual saving running into the millions.

Resurrecting all usable equipment from the debris of World War II, the technical services of the European Command have been funneling back into supply channels thousands of items, ranging from giant cranes and mobile laundry units to uniforms, optical instruments, and telephone sets. In all, since the program got under way in April 1947, an estimated $135,000,000 worth of property has been restored to use. To replace this equipment at present-day prices would probably cost double this amount.

Four technical services—Quartermaster, Ordnance, Engineer, and Signal—are engaged in this endeavor. The 70,000

BERNARD J. QUINN is on the staff of Public Information Division, European Command.

American troops on maneuvers in Germany last April reaped some of the benefits. They were supplied their daily bread by Quartermaster mobile bakery units—vehicles, brought in over the invasion beaches in 1944, that once had been given up as unrepairable. Thousands of discarded Army uniforms, newly cleaned and mended by the Quartermaster Division, were issued to the troops. They used field telephones and radio sets rebuilt by the Signal Division, and heavy earth-moving equipment from Engineer repair depots. Vehicles badly damaged during combat days, others that had mouldered in supply dumps since the hectic redeployment days of 1945 and 1946, roared into action—restored to duty by hard-working technicians of the Ordnance Division.

In all, about 120 United States civilian employees, more than 600 Army officers and enlisted men, and about 16,000 German civilians throughout the U. S. Zone of Germany and Austria are engaged in the program. They rebuild, from the ground up, equipment from salvage heaps and supply dumps that is in all stages of disrepair and disintegration. They are the shock troops in a vast reclamation program directed toward the goal of making EUCOM as self-sustaining as possible.

Advancing the Triple R program, special schools have been established for German workers. Texts and instruction manuals are prepared in German, and instruction is given by German engineers and mechanics under American supervision. The Quartermaster Division, for example, conducts an eight-week course in the operation of precision equipment and assembly-line methods. The course is attended by German workers and American personnel, both military and civilian. More than 9000 Army officers and enlisted personnel have been trained at the Ordnance Division school at Eschwege, Germany.

The Triple R program, begun in 1947, was given added impetus in the summer of 1948 by the launching of a zone-wide work simplification program. After extensive analysis of job procedures, all tasks were reduced to their simplest elements, so that unskilled and semi-skilled labor could be employed more extensively.

Typical of this technique is the motor vehicle reclamation project, operated by the Ordnance Division in six German automobile manufacturing plants, including factories of Opel and Mercedes-Benz. Two and one-half ton trucks and quarter-ton jeeps, all go through the same processing. The vehicles are stripped to their component parts. After inspection, those

parts still in good repair are placed in bins; and the vehicle is then reassembled, to the last nut and bolt, with relatively unskilled labor performing simple tasks on the assembly line.

Using this method, the cost of rebuilding military vehicles varies from 20 to 60 per cent of the purchase price. The jeep, which cost about $1050 in war time, is rebuilt in Germany for about $690. The 2½-ton 6 x 6 truck, costing $2850 in wartime, is rebuilt at a cost of $1120.

As the tide of World War II receded, about four million tons of Ordnance equipment were left on the European continent. Out of the stocks remaining after huge surpluses were sold to foreign governments, the Ordnance Division, since April 1947, has reclaimed and returned to depot stocks: 38,000 vehicles, 300,000 tires, 93,000 inner tubes, thousands of engines, tools, bearings, and the like, to say nothing of miscellaneous items ranging in size from a wrist watch to a refrigerator or a 42-ton M-26 tank. A thousand Air Force truck-tractors and trailers, enough to supply seven heavy truck companies, were reclaimed and used to maintain the flow of supplies at terminals of the Berlin Airlift.

The Ordnance Depot at Kitzingen has reclaimed more than 500,000 items; and each week about 25 tons of tools of all types are reclaimed and returned to supply channels. During the two-year period ending 1 April 1949, Ordnance equipment originally costing $110,000,000—but worth about double that amount at present-day replacement costs—was restored to service at a cost of $45,000,000, about 20 per cent of its present replacement costs.

The Engineer Division also contributed its share. Bulldozers and other heavy earth-moving equipment, abandoned in German fields, were rebuilt and put back into service, in time to play a major role in airfield construction in support of Operation Vittles. More than 1600 pieces of heavy equipment—cranes, trailers, scrapers, air compressors, generators—which once lay deteriorating in open fields, have been restored to duty. More than 900 pieces have been shipped to EUCOM units and to various European nations; and the remainder are maintained in Command depot stocks.

Except for snow removal machinery, not available in Europe, and bridging equipment, lubricators, drills, and parts uneconomical to rebuild, most of the Engineer supplies used in the U. S. Zones since 1947 have been provided by Engineer reclamation efforts. As a further economy, Engineer salvage experts

have converted gasoline burning engines to Diesel types, and even to charcoal burners, so that EUCOM fuel requirements may be met locally.

At the two main Quartermaster depots in Germany, reclamation work is under way on mobile bakeries, laundries, field showers, folding cots, and the like. More than 1500 fork-lift trucks, with capacities from 1½ to 5 tons, have been reconstructed and made available for rapid loading and unloading of supplies. Office equipment, from typewriters to inks, is salvaged at the huge Quartermaster depot at Marburg. During 1948 alone, ten million dollars worth of unserviceable Army clothing was restored to use at a cost of $1,300,000.

U. S. Army Photograph

Above, a battered 6 x 6 truck before it was reclaimed by EUCOM Ordnance mechanics. Below, the same type vehicle after being rebuilt.

Out of the huge quantities of unsorted, unserviceable, and surplus Signal Corps property shipped to the central collecting point at Hanau, Germany, at the end of World War II, great savings have been realized by EUCOM's Signal Division. After being sorted, tagged, and stored, the equipment was rebuilt by teams of German technicians, working under American supervision. Communications equipment rebuilt at Hanau served the planes, ground crews, and loading teams of the Berlin Airlift and our troops on Spring maneuvers. During a two-year period, the Signal Division placed 47,000 pieces of radio, wire, and photographic equipment back in circulation at a cost of $450,000—about nine per cent of the wartime purchase price.

By supplying our occupation troops in Germany and Austria from surplus stocks and salvage depots, a considerable saving in occupation costs has been effected. Dollar costs of the rebuilding program are limited to the cost of United States materials provided for the project. Spare parts are supplied from depot stocks, salvaged from equipment definitely beyond repair, or manufactured in Germany and paid for in *Deutschemarks* which are charged against the U. S. Occupation budget.

The program was not without its problems in the early stages; but two developments have helped stabilize production and efficiency. First, the establishment of the new *Deutschemark* on a firm basis in June 1948 helped cut down absenteeism and labor turnover. Second, the work simplification program, instituted about the same time, enabled depots and repair centers in rural areas to utilize more widely the available supply of agricultural labor.

Now in its third year, the Triple R program not only is helping EUCOM pay its way, but also is helping to spark German industrial recovery and reemployment. At a time when German industry was virtually at a standstill, Army Ordnance set up shops in inactive plants, and began rebuilding vehicles for Army use. Even today, much of the vehicle rebuilding work is done in German plants. But as more materials become available, and as the German economy moves toward full production, these activities are being transferred to Army shops, so as to release facilities for civilian use.

Throughout the breadth of the devastated areas, the example of EUCOM, reclaiming war-spent materials to help pay its way, is adding a heartening impulse to European recovery.

HOW THE ARMY PLANS

By

LT. GEN. ALBERT C. WEDEMEYER

Deputy Chief of Staff for Plans and Combat Operations, United States Army

Planning in the Department of the Army is not essentially different from planning in the field; but it is broader in scope. For Army planning at this level must be fitted into the framework of national strategic planning—planning which must consider political, economic, psychological, and military factors. It is not enough for Army planners to know the Army thoroughly; they must also have a good working knowledge of the Navy and the Air Force, so that there will be a single, efficient, alert military defense team to give force to our national policies. Beyond that, Army planners must know something of national political and economic factors, so that their military proposals will be in consonance with our foreign policy, our economic capabilities, and the will of the people.

National strategic planning stems from policies enunciated by the President. It is strongly influenced by foreign policy, drawn up by the State Department and approved by the Congress. But foreign policy is realistic only when it relates the capacity of the United States—in money, in manpower, in public will—to the potential and the probable intentions of an enemy. It is at this point that the military planners enter the picture.

Based on estimates, by the Central Intelligence Agency, of enemy strength and intentions, and on the knowledge of our own military potential, the planners draw up plans for meeting all reasonable contingencies—now and many years from now. They recognize the various possible combinations, of

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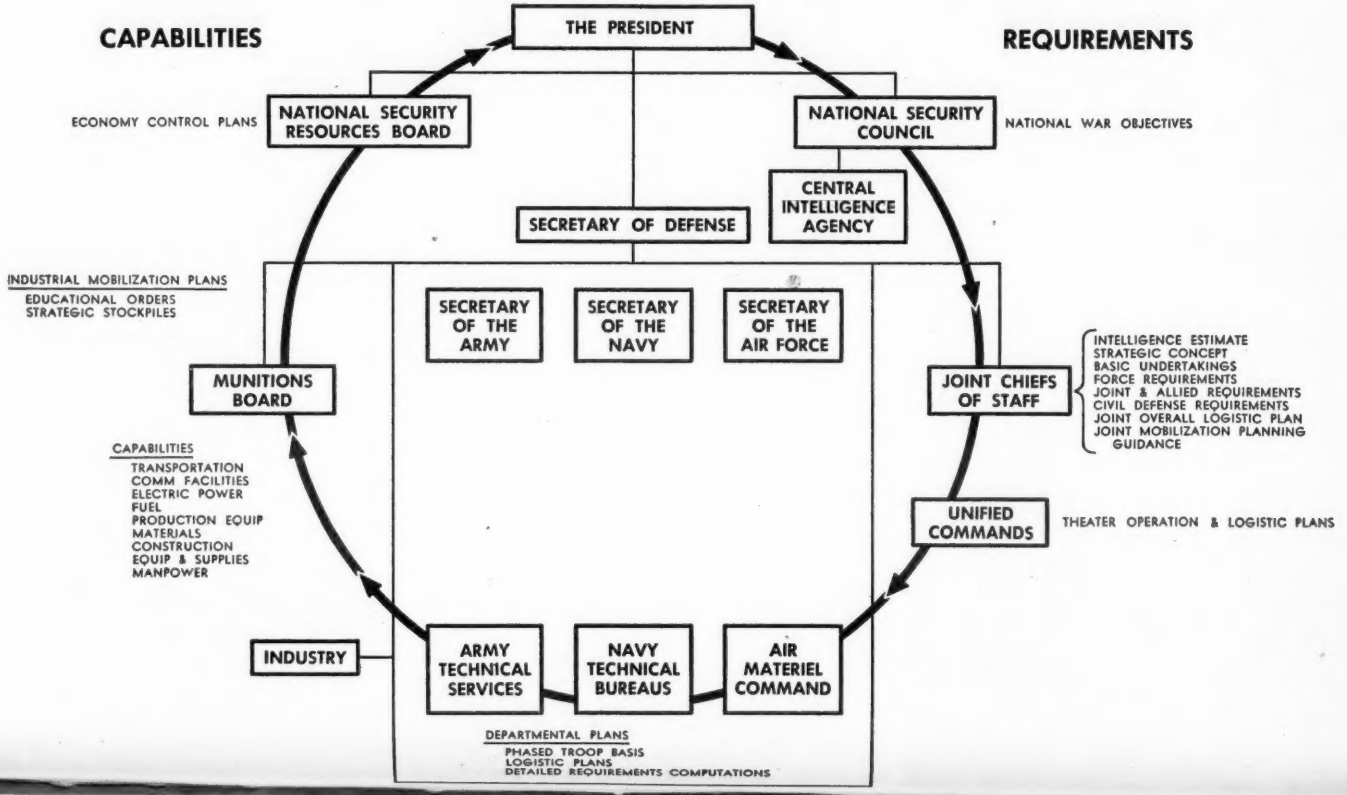
Since this article was written, General Wedemeyer has been appointed Commanding General, Sixth Army. He will be succeeded by Major General Alfred M. Gruenther.

THE PLANNING CYCLE



allies as well as enemies. War plans must consider the possibility of total war, using the full manpower and economy of the Nation. They also must be carried through the post-hostilities period; for it is just as important that stable world conditions be established as that the armed fight shall be won.

The planning cycle starts with the President; it is his basic policies that provide guidance or firm direction. The broad military requirements arising from these policies are then determined by the National Security Council, on which the Secretary of Defense represents the Defense Establishment. Actual military planning from then on is a cooperative effort of military planning agencies—including the Joint Chiefs of Staff; the Munitions Board; the Departments of the Army, the Navy, and the Air Force; and the oversea unified commands. Each of these agencies has its peculiar responsibility in the planning cycle. But after the Joint Chiefs of Staff, the services, and the oversea commands have determined what it is desirable to do, and after the Munitions Board has reviewed and consolidated the requirements of the three services for men, materials, and facilities, the National Security Resources Board then must see whether these requirements can be supported by the national economy.

Army plans must recognize not only the military missions of the Army but its civil missions as well. They must fit into the framework of joint plans prepared by the Joint Chiefs of Staff. There are four basic categories of Army plans: (1) long-range war plans, (2) mid-range war plans, (3) emergency war plans, and (4) mobilization plans.

The Department of the Army not only draws up Army plans, but also has executive responsibility for joint plans of the Far East Command, the Caribbean Command and the European Command. All these are unified commands under the Joint Chiefs of Staff, but the Army is the executive agent for their operations.

The Army's contribution to a JCS plan cannot be completed until the Munitions Board, acting for the Department of Defense as a whole, balances the requirements of the joint plan in raw materials and facilities against what is available and against the capacity of the civilian economy to provide them. Only when the Army tailors its plans to available resources can the plans be deemed capable of implementation.

Next, money comes into the picture. The President has recommended military appropriations for the year, and the

relative priorities in the use of these appropriations. And the Congress has approved all or part of these recommendations. The Army plan must fit into these budget provisions, and must make sure that every available dollar is made to count. However, since budgets are estimated far in advance of appropriations, Army plans which form the basis for these estimates must be started at least two years ahead of time. Thus lead time, a controlling factor in planning for weapons and equipment, is also a controlling factor in fiscal planning. Indeed, the lead time for production must be added to the lead time for money. In other words, budgetary planning must be done two years in advance; then, when the funds are appropriated, another two years will elapse before such major items as trucks and tanks can be turned out. In effect, therefore, Army planning that is related to considerations of the budget and production is on a four-year cycle.

In addition to the four basic categories of plans listed above, Army plans fall into the following types, each of which is designed to accomplish a certain purpose: (1) a war plan, for conducting war on a global scale; (2) a campaign plan, for a connected series of military operations which form a distinct stage of war; and (3) an operation plan, for part of a campaign.

Thus, a war plan is broken down into campaign plans and operation plans; and until these subordinate elements are completed, the Army's part of the overall war plan is not rounded out.

To insure effective execution of a plan, a program must be developed; that is, a course of action must be definitely scheduled—to bring the plan to life, to insure that it is more than a piece of paper, and that the requirements it calls for will be available when they are needed. Programs are based on approved plans and are normally developed with a definite intent to execute. However, programs, like plans, may be developed and maintained in readiness to meet an emergency. Together they must spell out, in peacetime and wartime, how the national resources (manpower, equipment, and so forth) that are called for will be procured and used.

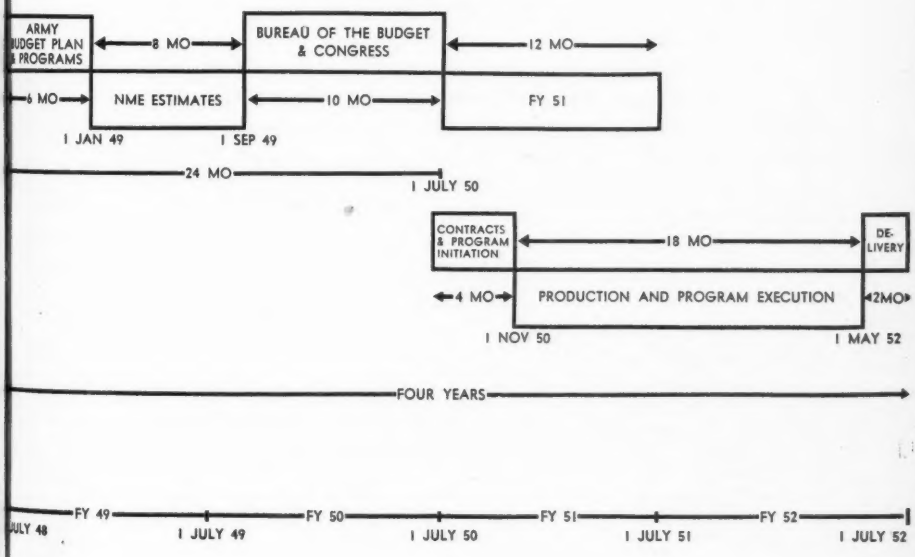
Long-range war plans assume D-Days that are projected to the end of the reasonably foreseeable future; and mid-range war plans are projected as the situation requires. The purpose of all Army war plans, campaign plans, and operation plans is to let each element of the command know what

is expected of it—what it must do (but not how to do it). These plans allocate responsibilities, establish policies, and prescribe planning factors. They do not, however, provide such information as the computations of requirements—but merely provide the guidance needed by the command to enable it to compute requirements. Where required, supporting plans are prepared by the supporting staffs and agencies; and these plans do contain numerical estimates of manpower and materials.

The first step in the development of an Army plan is the receipt of a directive, which may be oral or written, and which gives the purpose of the plan, the target date for its completion, and the key assumptions. The directive is analyzed, to determine the agencies involved. These agencies then proceed together to develop the plan, in the following sequence: (1) an estimate of the situation is prepared; (2) missions are analyzed, and a concept of Army operations is developed; (3) undertakings which are basic to the plan are listed, analyzed, and correlated into a scheme of operations showing force requirements and time phasing; (4) a logistical plan is developed; and, finally, (5) the command structure and communications plan are delineated.

Once a plan is completed, a feasibility test may be conducted

ARMY BUDGET CYCLE



to find out whether the plan actually will work. This may be a limited feasibility test designed to isolate the danger spots or areas wherein capabilities may fall short of requirements; it may be a more detailed examination involving requirements computations; or it may take the form of a war game—such as a one-sided or a two-sided map maneuver, before an umpire group. Strength, fire power, and mobility are primary criteria in umpiring a war game. If any of the three methods of testing discloses defects, corrective action may be taken to increase capabilities; or the plan may be revised. In case serious defects are found, the strategic concept itself may require modification.

Once a plan has been tested and proved feasible, the programs necessary to implement it may be prepared. There are three elements in program management: (1) program development, over which the Deputy Chief of Staff (Plans and Combat Operations) has cognizance; (2) program execution, under the cognizance of the Deputy Chief of Staff (Administration); and (3) program review, under the Army Comptroller. All three are closely related, and close teamwork exists. Each staff agency charged with a primary Army program is given its specific objectives. These specific objectives are further broken down and assigned at successive staff levels where responsibility for subordinate programs is already assigned. A completed primary program is the sum of its related subordinate programs, after the latter have been analyzed, balanced and correlated.

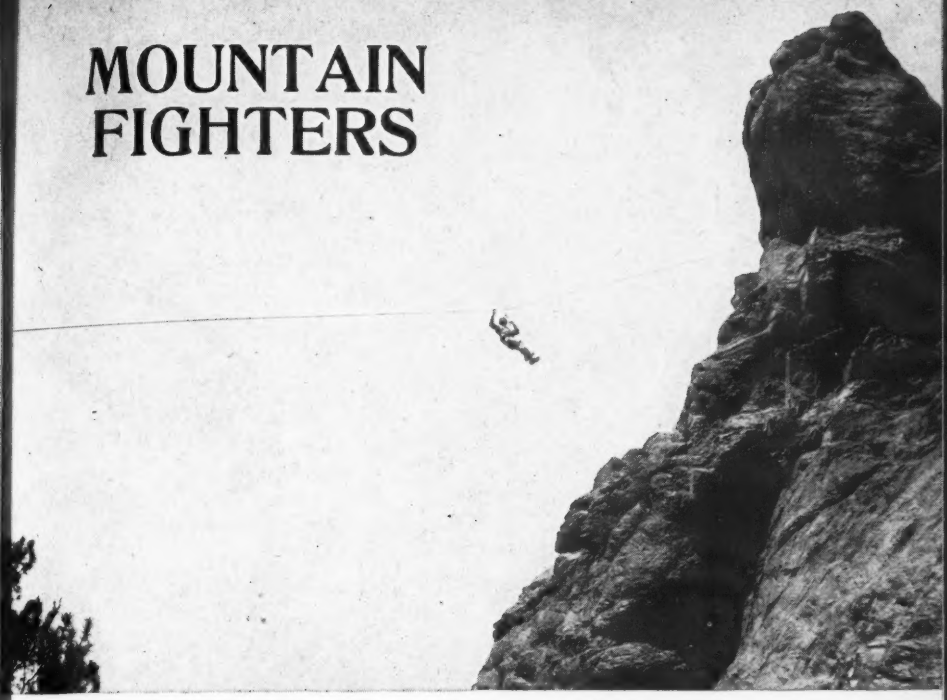
Throughout planning and program management, the planners keep before them the overall plan of the Joint Chiefs of Staff, which in turn is part of the national strategic plan. Once completed, the Army plan and its supporting programs enable the Chief of Staff, the Secretary of the Army, and the Congress to move surely and swiftly into action.

AID

The true professional is a military intellectual. In modern times he developed earliest in Germany and latest in the United States. He is more teacher than soldier. Once a generation he practices what he teaches. He is comparable to the professor of engineering who leaves school to do an engineering job, or to the professor of law made judge.

Colonel Thomas R. Phillips, in a review of "Eleven Generals" by Fletcher Pratt (William Sloane Associates) appearing in the "New York Times"

MOUNTAIN FIGHTERS



HIGH in the Colorado Rockies, in the mountains surrounding Camp Carson, groups of Reserve officers each summer undergo a unique form of field training. During their two-week tour, with military and civilian veterans of the Italian and Kiska campaigns as their instructors, they learn the lore and skills of mountaineering. They learn to cut toeholds in icy ledges. They cross chasms and crevasses. They build rope bridges, and sling litters along hairbreadth mountain trails. They pack mortars on muleback, and they tug at traverses and hauling lines. They learn to pit hardihood, stamina, and resourcefulness against the formidable barriers of jagged peaks. They learn, too, that the traditional role of the foot soldier—the seizing and holding of ground—is a many-faceted problem; for topography and the forces of Nature also are adversaries to be overcome.

One hundred and thirty-five miles to the southwest, on the snow packed slopes of Old Baldy and Sierra Blanca mountains, advanced classes of Reservists train in the techniques

CAPTAIN P. J. HARRIS, FA, the author, is Commanding Officer, Mountain Training Detachment, 14th Regimental Combat Team.

of snow and ice climbing. Linked by stout ropes, and wielding ice axes and pitons, they thread their way up the tortuous ascent. They bivouac on the snow fields, in the shadow of overtowering peaks. Climax of their summer training is an attempted ascent of Old Baldy—or of Sierra Blanca, which stands, as a continuing challenge, 14,400 feet above sea level.

Under quotas established by the Commanding General, Fifth Army, Reserve officers from all six Army Areas may participate in summer training with the Mountain Training Detachment, 14th Regimental Combat Team, at Camp Carson. General service officers, preferably company grade officers of the combat arms who are capable of arduous physical training, are accepted for the courses. There are two courses, basic and advanced, each lasting two weeks, with all training time spent in the field.

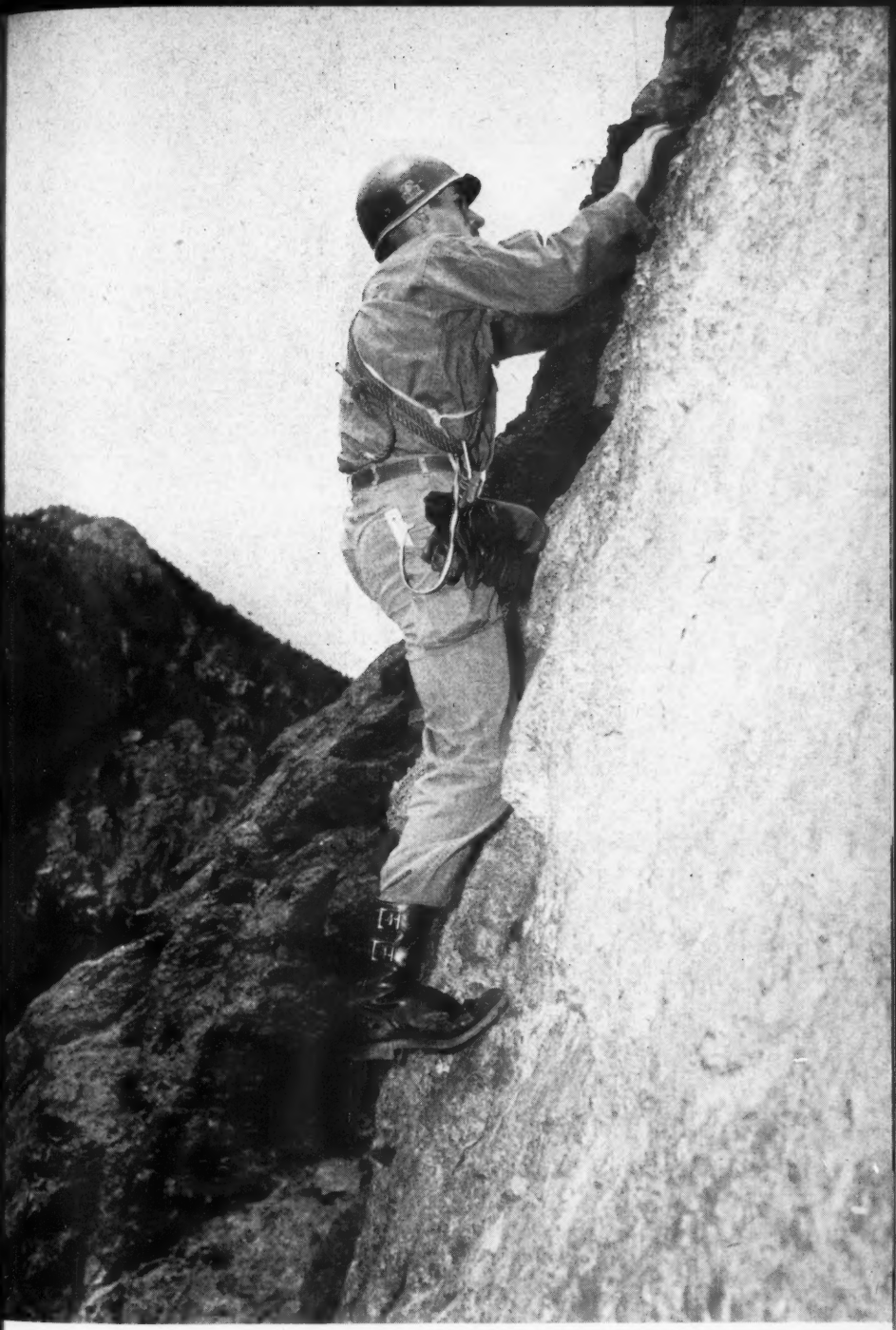
The basic course provides training for those with no previous mountain experience. Instruction includes knot tying, rope management, practice falls, night movements, rope installations, and bivouacking. Historical examples of mountain operations are reviewed; and the logistics peculiar to mountain warfare is taught, including the use of the M-29 cargo carrier and the knack of loading a pack mule.

After viewing the opening demonstration of climbing techniques, many new arrivals are convinced that they could never match the performance; but two weeks later they feel as secure, teetering on a precipice, as on level ground. No students have refused to complete the course; and the only accident—a broken ankle—was sustained in a jump from a low rock to level ground.

Officers qualified for the advanced course spend their first week brushing up on fundamentals at Camp Carson, then move out to the Huerfano Valley. On the snow fields and slopes of Old Baldy and Sierra Blanca, they learn the use of the mountaineer's ice axe and the techniques of snow and ice climbing.

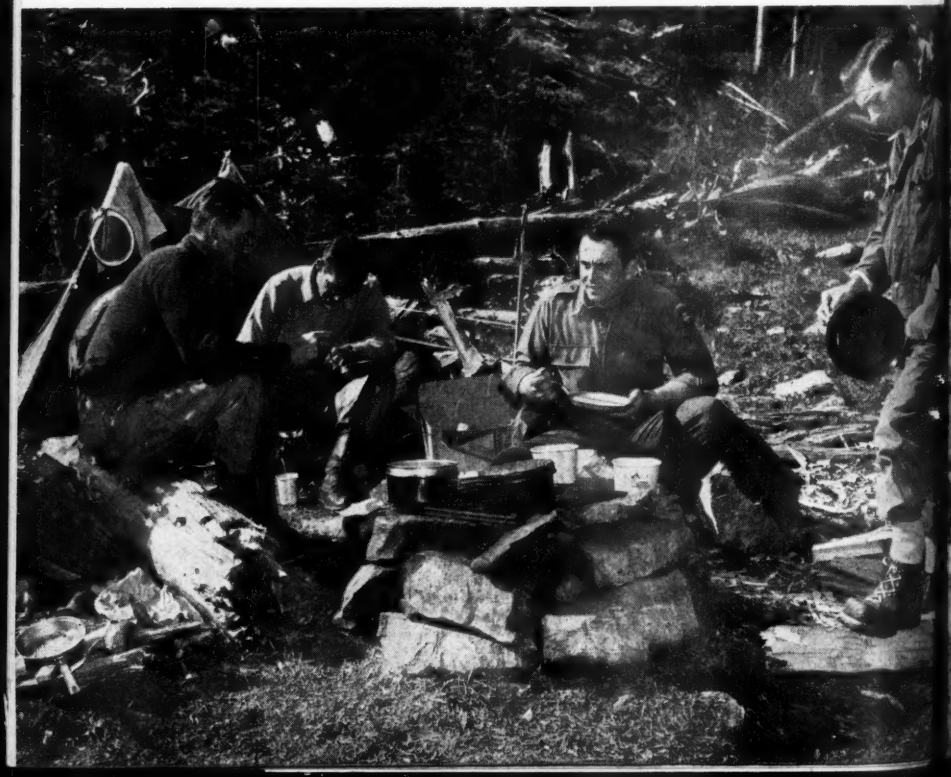
Officers from every state in the Nation—ranging in age from 18 to 50—have learned sure-footed climbing techniques with the Detachment. About 800 Reserve officers have completed the summer course.

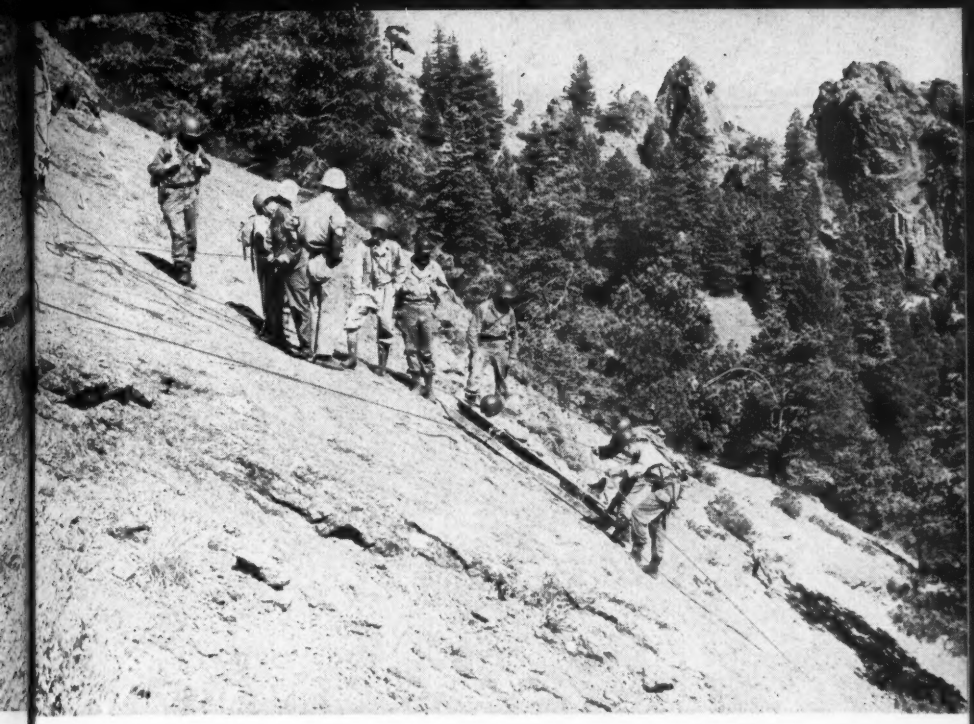
For winter training in oversnow movement and survival, Regular troops train at Camp Hale, Colorado, where the Detachment provides training in basic military skiing, snowshoeing, winter bivouacking, ski-joring, and sledding.



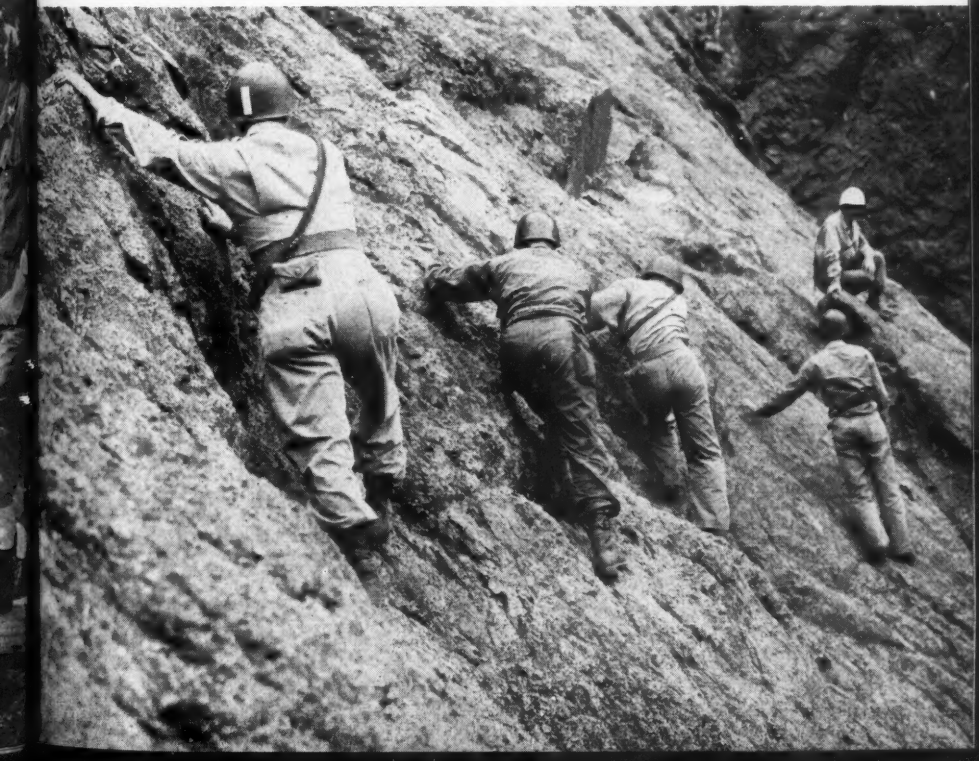
A Detachment enlisted man gives a demonstration of free climbing on rock, unaided by rope or axe.

A heavily laden party (above) toils up a steep hillside near Camp Carson. Below, a group of climbers enjoy breakfast before undertaking the ascent of Mount Baldy.

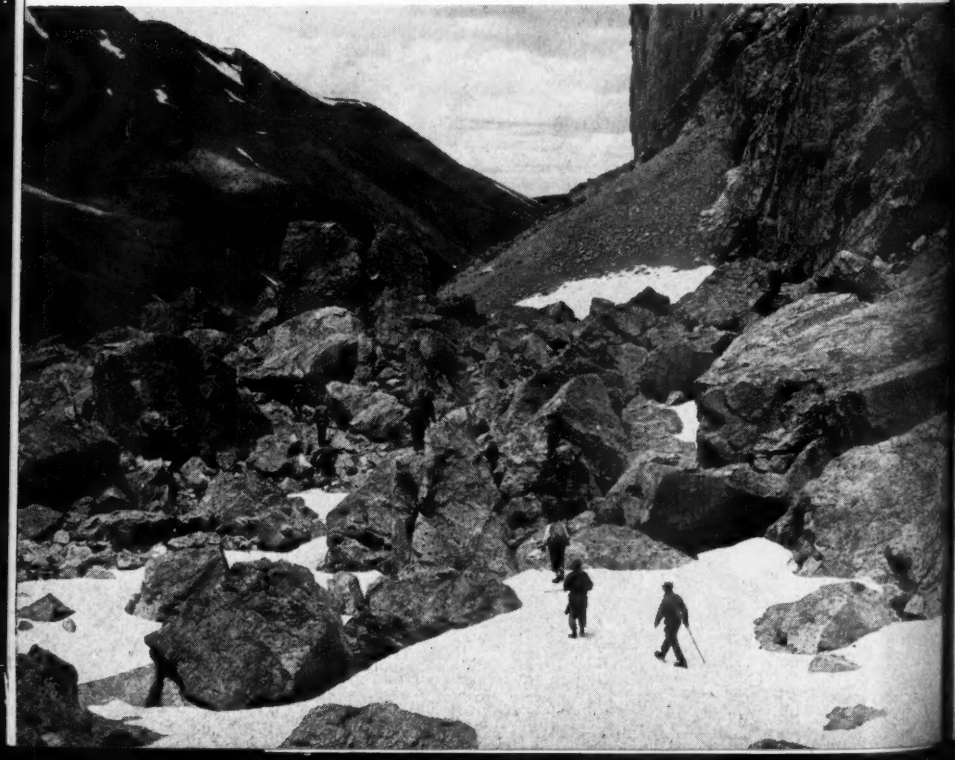




Above, trainees practice litter evacuation over rugged terrain. Below, a party advances along the face of a slope during a practice session in balance climbing.



Members of a class climb the Sangre de Cristo range. This is part of a conditioning hike held the first day after arrival in the bivouac area. Below, trainees, blending with the rock formations, thread their way through a talus formation near Mount Baldy.



Two instructors demonstrate the body rapel in snow. The man higher on the slope secures the rope around his axe, reinforcing it by knee pressure. Below, an instructor demonstrates the proper method of glasading down a steep snow chute.

An instructor demonstrates rapelling on the rocky crags near Mount Baldy.

All U. S. Army Photographs

QM TRIES IT ON FOR SIZE

By

CAPTAIN THOMAS R. NEVITT

TUCKED away in a tree-shaded area of Camp Lee is the headquarters of an Army task force that is waging a continuous campaign to keep the United States soldier comfortably clothed and shod, well-equipped and well-fed. Here the Quartermaster Board, test agency of the Office of the Quartermaster General, has created an outdoor testing laboratory that has no known counterpart in any other army. Here men walk for a living, or slide down drains, or throw coffee cups against walls.

From colonel to private, this organization is motivated by insatiable curiosity and boundless enthusiasm in seeking the answers to such questions as How long should a ski pole be? or What pulls buttons off clothes in a mobile laundry unit?

The Board, during fifteen years of operation, has created a number of devices that are the ultimate in systematized destruction. They include a Shoe Track, a Combat Course, an Obstacle Course, a Rain Course, and an Exposure Area, all designed to wreak havoc on clothing and equipment—abuse that would make a supply sergeant shudder.

Of these devices, the shoe track is perhaps unique. It is a sixth of a mile of abrasive horror for Army footwear, with surfaces that represent everything from the sidewalks of New York to the lava-strewn slopes of a volcano. On this track a pair of shoes, such as the low quarter, can be worn out in three days, while sturdier types—the service shoe or combat boot—may take as long as fifty days. This represents six months to a year of normal wear.

No less important than the shoe track itself is the group of men who use it. They may be soldiers or civilians. In fact,

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the Board has a group of highly prized civilians, professional shoe walkers, who are valued for their consistent performance. These walkers, who tramp the track for distances up to twenty miles a day, are selected with care. To be good shoe walkers, they must have a minimum of peculiarities in walking habits, should wear the normal shoe tariff sizes, and should be capable of trading shoes among themselves. And they must have a high resistance to blisters.

The procedure for testing a pair of shoes follows a pattern. For comparison purposes, an experimental type shoe and a matching standard shoe, selected at random from depot stocks, are cross-mated. A team of shoe walkers will be provided with two pairs of shoes, with one man wearing a left standard and a right experimental type, while the other wears a left experimental and a right standard type shoe. The men may walk over all or any part of the track, depending on the test information sought. They may walk a ramp, up and down; they may stride across 30-degree saw-tooth steps; or climb stairs and jump down; or walk over surfaces tilted 30 degrees, alternating to right and to left. They may climb a stile; or step along a three-inch ledge walk—and cover the rest of the distance over rough concrete, loose stone, lava, slag and abrasive materials imbedded in concrete. They may wade through any of three troughs filled with water, mud or hydrocarbon mixtures, such as oil and sawdust. The shoe track is not haphazardly conceived; its surfaces are arranged to represent wear in the field on an accelerated scale.

All tests are controlled. A trained observer keeps a check sheet, noting the types of surfaces traversed, the number of cycles completed, and other data. After a determined number of circuits, the walker surrenders his shoes to experts who note the degree and variation of wear. The test shoes then may be baked under lights to simulate aging—and started over the track again. This continues until the desired data are obtained.

Through research and testing, the Army has developed a shoe sole so tough that it is no longer the critical factor in the life of the service shoe or boot. Instead, the construction of the uppers is now a principal object of study. Saw-tooth steps, tilted walkways, stairs and jumps and similar devices cause flexing of the shoe and accelerate the failure of the stitching, or, as in the case of the three-inch edge walk, expose a weakness of the welt.

The shoe track—perhaps the Board's most noted operation—has been studied by other nations. The British Army plans to duplicate the operation in England. The Germans, it is now known, had a similar operation in which slave laborers were used. German walkers, deemed expendable, covered 65 kilometers in a day.

While not as spectacular, the Glove Utility Course has no less important a place in testing. Again, accelerated wear duplicates the wear the glove may encounter in normal use; but in this case dexterity is another element to be considered. A work glove, for example, gets different treatment from that of a driving glove. Some of the durability tests in the glove cycle include: moving and piling building bricks and cinder blocks, moving and stacking timbers and planks, shoveling gravel, raising and lowering a weight with a windlass, and striking a suspended sand bag. For dexterity, trials are run in the assembly and disassembly of nuts and bolts of assorted sizes, operation of a rifle sight and bolt, and the like.

As the shoe walkers tread their rough path and gloved men pile cinder blocks, they can hear the shrill blast of that Army institution, the sergeant's whistle. With every blast, young men, three abreast and deployed over a quarter of a mile of the Combat Course, slide, crawl or hurl themselves at another obstruction. It smacks of battle training, but in this case garments are being tested, rather than men. The engineers designed this punishing course; and the Quartermaster Board

U. S. Army Photograph

Conducting a test over a portion of the shoe track.

U. S. Army Photograph

Hurtling over a hummock and crawling through pipes on the combat course show up points of strain and abrasion.

uses it as a means of improving the wearing quality and comfort of the uniform. But while the course is torturing fabrics, it is also providing a grueling workout for the men who wear them. There can be no half-heartedness if the test is to succeed. For this reason, all the Board's test subjects are volunteers—men who believe in the importance of the job and are willing to knock themselves out for the answer to a question.

The man with the whistle is the course observer, the control factor of the test. When the first whistle sounds for the start of a cycle, three men dash forward and slide to cover behind a log. At the second whistle, these three advance and another trio take their places. The cycle continues, with the men crawling over rocks and a section of railroad track, complete with ballast. They slide down a stone riprap, shinny over fallen trees, squeeze themselves through drain pipes, and endure other wearing trials—until they climb a concrete wall at the finish line. They traverse the course six times a day. Of the current group of testers, only one has gone AWOL. He developed boils.

While the Combat Course is designed primarily for wearing out materials, the Obstacle Course puts stress on the seams and stitching of garments and tests the freedom of movement that can be expected by the wearer. Clearing a dozen obstacles, the men high step over hurdles, climb cargo nets, surmount a wall, swing on ropes, traverse overhead ropes hand over

hand, indulge in the side straddle run, and perform other feats of agility. The ease with which certain items of equipment may be carried over difficult terrain is also determined.

On the Rain Course a few steps away, a maze of pipes, nozzles, and valves has been brought to near perfection as a rain-maker. The Quartermaster Board wanted rain to order—not just a sprinkling system—to determine the water repellent factors of raincoats, ponchos and field jackets. Moreover, the Board wished to determine the degree of water-proofing of containers, packing cases and pup tents; and they wanted to test the rust resistance of metal equipment. The result is the present system of rain-making, that can deliver simulated rainfall—from a drizzle of three tenths of an inch an hour to a torrential downpour of three inches an hour. It is not enough merely to get a quantity of water falling on the area; the size of the drop is important, too. To get this result, the Board turned to the movie makers, obtaining the services of an expert Hollywood rain-maker, on the theory that if it looked like rain in the movies it was rain. All that remains

U. S. Army Photograph

Moisture penetration is tested by contact with simulated high grass on the rain course.

to be installed on the course is a wind machine, to produce driving rain.

The Rain Course is divided into two sub-courses: dynamic and static. The dynamic course—incorporating features of both the Combat Course and the Shoe Track—shows how garments and shoes will wear when wet, their water repellent characteristics, and the like. Men wear the test garments while walking through water-soaked bushes, crawling under dripping canvas garlands, slithering over water-soaked sandbags, and simulating other activities that may be necessary in the field. Test results are evaluated by weight and chart. The under garments, usually suntans, are weighed before and after traversing the course. The gain in weight represents the quantity of water that has penetrated the protective garment. Suntans are used because water stains are well defined on this fabric, and the points of penetration can be charted.

The static section of the course is an open area in which a tent or a hutment is erected. Here, innumerable items of equipment—a knapsack, a can opener or a stack of supplies covered with a tarpaulin—are exposed to rain conditions that these materials may have to endure in the field.

The Mechanical and Miscellaneous Branch designs and conducts engineering and service tests of Quartermaster mechanical and mobile items, such as laundry units, bath units, salvage repair shops, and refrigeration units. Currently, the field bakery is undergoing complete revision in design. A dry cleaning unit is one of the new projects under study; for while Quartermaster laundries have been converted for dry cleaning, this is not considered a safe or final expedient.

One of the most active branches of the Products Testing Division is the Fuels and Lubricants Equipment Branch, which designs and tests gasoline dispensers, containers and related equipment. This branch operates in an open area, under canvas and isolated. It is most concerned with collapsible containers for fluids, from the small "jerry" gasoline can to the storage tank that may contain thousands of gallons. The branch is working on plans for collapsible units for the conversion of cargo trucks into tank trucks, flotation tanks that may be brought ashore during amphibious mechanized operations, and a gasoline container that can be folded, when empty, and thus save storage space.

The Exposure Area is the Board's torture chamber for those items of Quartermaster equipment that spend the useful

part of their life exposed to the weather. Here, the testers have erected scientific instruments for measuring solar radiation and the intensity of infrared and ultraviolet rays. Studies of climatology are made, to determine the destructive effect of weather on fabrics and other materials. The greater part of the area is filled with tents, of all sizes and shapes. In one test of deterioration, sections from one group of weather-worn tents are removed for study by the experts. In another group of tents, areas of canvas are circled, indicating where metal fittings have made zinc oxide deposits, and the tents are studied to determine whether the deposit has had any deleterious effect on the canvas. Another section consists of exposure frames of materials, woven or in strands—cotton, wool, nylon. In the middle of this area, in a wire cage, smaller items are exposed. Currently exposed to the weather are combat rations, both in cases and with the components exposed. Nearby, sun helmets of several types are weathering.

Samples of container-material, fabric, and cardboard containers are ingeniously wired, so that a variation in moisture content will be indicated by fluctuations on electrical devices.

U. S. Army Photograph

Seam strength and freedom of movement are among the factors tested on the obstacle course.

This indicator, developed by the Board's technicians, keeps a record of the frequency and degree to which the material is dampened.

Scientific instruments for measuring solar radiation are borrowed from the Smithsonian Institution. There are three electric valves—one sensitive to total solar radiation, one to infrared rays only, and the third to ultraviolet rays only. The valves are exposed to the sun at intervals regulated by clockwork, and the rate of radiation is transmitted electrically to a recording device. These instruments provide a constant record of the intensity and duration of sunlight and its component parts, for determining the degree of exposure of materials under test.

Other instruments in the Exposure Area include such weather charting devices as anemometers, barometers, wet and dry thermometers, rain gauges, and the like. The experts also are not averse to using common sense. Birds perching on the test frames complicated the fabric tests, until someone thought of stretching a wire a few inches to the rear of the frames. Now the birds perch on the wire, and the testers are able to devote their attention to normal hazards of the weather.

The Quartermaster Board's Survey Division seeks the answer to such involved questions as How fast can you shunt a freight car, using pallet loading with different types of bracing? In this case, the Division developed a system of bracing that will permit shunting speeds up to twelve miles an hour, four miles faster than the standard rate. The Division now is working on a proposal to use balloons for load bracing.

This Division travels far to find the answers to many of its questions—to Europe, the Far East, Alaska, or the Canal Zone. At present, a representative of the Board is following a shipment of potatoes about the world, to check on the efficacy of a preparation designed to prevent sprouting. His latest report, from the South Pacific, indicates that the potato sprouts are still in check.

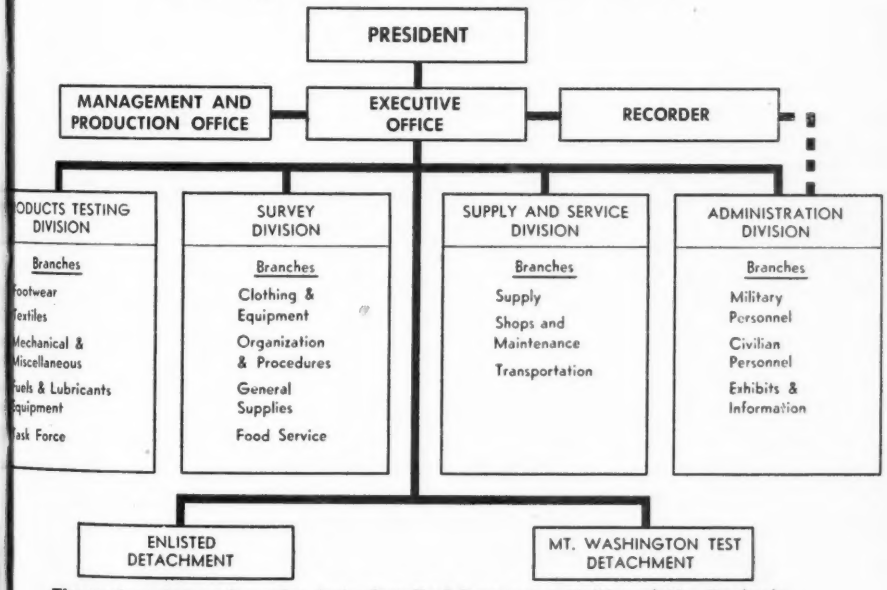
The Food Service Branch concerns itself with the subject closest to the soldier—the ration, whether it comes over the serving line of the Army kitchen or from the combat ration can. Few soldiers realize, however, how extensive and minute these studies are. In the experimental kitchens at Camp Lee is a series of mechanical devices for reconstituting dry milk. They are designed to beat it, churn it, grind it, refrigerate it, and generally to return the powdered milk to the status of

grade A. The experimenters have reached the point where reconstituted milk can be substituted for the original product without discernible difference; but the electric-powered apparatus is still too bulky for front-line use. This test revealed an aspect of human nature, too. When powdered milk was mixed openly, the men accepted the reconstituted milk with the air of martyrs; but when, behind the scenes, the milk was placed in unbranded milk bottles, the men accepted it without protest.

Food handling equipment also receives serious consideration. Bread boxes, now vital since the Army bakery is slicing its bread, are under study. After dropping, smashing, weathering and generally maltreating boxes of many materials and varied design, a tentative model—light, sanitary, and durable—has been selected for field issue, on a trial basis.

Plates—not only their durability and cost, but also their color, size and design—are another subject of study. In the durability test, dishes and cups taking a beating reminiscent of a Laurel and Hardy comedy. Full trays are dropped to

The Quartermaster Board



The engineering and service tests described here are activities of the Products Testing Division and the Survey Division. The Board's administrative functions are performed in the Administration Division. The Supply and Service Division provides supply, construction, maintenance, and transportation services.

the floor and knocked from tables. They are run through the steam of washers and are dropped all over again. If they don't bounce, they are not durable. As for acceptance, experiments in Army dining halls show that the men prefer cream-colored or tan plates and cups, and that they prefer the largest plates or cups they can get their hands on. In design, they prefer the divided or "blue platter" plate with a rim; it holds more. Because no commercial restaurant-size cup satisfied the men—even the largest being deemed too small—the Food Service Branch is waiting for the manufacturers to provide an outsize cup for soldier capacities.

The Quartermaster Board is under the supervision of the Military Planning Division, Office of the Quartermaster General, and receives its test projects from the Research and Development Branch. Its personnel strength is 41 officers, 4 warrant officers, 378 enlisted men and 98 civilians. Administratively, the Quartermaster Board, like The Quartermaster School, is a part of The Quartermaster Center, and, like Camp Lee, is under the command of Major General Roy C. L. Graham. Under the post command is the WAC Training Center. Both The Quartermaster School and the WAC Training Center participate in the Board's testing program.

Unusual articles of clothing may be worn about Camp Lee—sun helmets and tropical clothing, for example, strange enough in fabric and appearance to make an MP reach for his notebook. Attached to these test articles, or in the possession of the test subject, however, is a statement citing the number of the test, and specifying that the wearer is directed to wear the odd apparel for the duration of the test.

With increased emphasis on cold weather operation, the Quartermaster Board last year established a test station, manned by a detachment of some 75 men, atop Mount Washington, near Gorham, New Hampshire. This site provides, within the United States, arctic conditions for the testing of cold weather clothing and equipment. At an elevation of 6300 feet, wind velocities reach as high as 231 miles an hour and temperatures plummet as low as 40 degrees below zero, with plenty of snow. Previously the Board had participated in such operations as Snowdrop, Yukon, and Frigid, but these did not provide the control factors essential for scientific appraisal. At its Mount Washington site, the Board will be able to apply all the principles of scientifically controlled testing, as practiced at Camp Lee.

RADAR--OUR SENTRY OF THE SKIES

By

CAPTAIN ALAN W. WILBER

THE first man to know if the United States is under attack by hostile aircraft probably will be crouched over a cathode ray tube in a small hut somewhere along the fringe of a far flung radar net. Sitting in a darkened room beneath a tall, slender antenna, he will be scanning the face of a radar tube, watching for tell-tale streaks of light that indicate the presence of objects thousands of feet in the air and hundreds of miles away.

Seated around the room, other men bend over the circular faces of other radar sets. With the instinct born of long training, they reach for the familiar controls that delicately tune the sets. Not unlike the familiar television set, the radar apparatus they use is essentially a receiver interpreting certain high-frequency radio waves, displayed in the form of visual electrical energy on the face of a cathode ray tube. Unlike television, however, the radar set transmits its own radio signal. As this signal bounces back from a target or object, it registers momentarily on the face of the scope in the form of a "blip," or light pattern, sometimes called an electronic painting. Adjusting the dials, the operators sharpen the image, darken the background, then check their instruments for the proper settings. Continuously, man and instrument maintain their vigil.

Here, in operation, is one of the sensitive nerve centers of the Nation's air defense. Known as Aircraft Control and Warning Squadrons, these units are designed to provide the earliest possible warning of an approaching enemy air attack. In addition, they are invaluable in directing the flight of our intercepting aircraft.

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With the recent authorization by the Congress of a radar net that will protect the approaches to vital targets in the United States, the number of these basic units will be increased. The radar experts manning these outposts will be the sentries and pickets of a well attuned continental defense system that will be geared to speed into instant action.

Aircraft Control and Warning Squadrons are operational elements of the Continental Air Command, United States Air Force. ConAC—headed by Lieutenant General Ennis C. Whitehead, with headquarters at Mitchel Air Force Base, New York—has the overall mission of the air defense of the United States. The Command comprises six numbered regional Air Forces divided nation-wide into geographical areas corresponding to the six Army Areas. The Aircraft Control and Warning Squadrons, organized into Aircraft Control and Warning Groups, are administered by the regional Air Forces.

Should one of the radar operators at an outlying station detect an attempted aerial attack, his warning would set the ConAC team into action. The first indication would be the banana-shaped "blips" or signals on the scope, indicative of intercepted objects. As the scope operator sensitively manipulates the controls, these "blips" become more and more distinct. Somewhere the space-probing high frequency radio waves of the radar transmitter have encountered aircraft. The reflected radar waves bouncing back to the visual receivers tell how many, how far, and where.

"Target, 090 degrees—180 miles." The operator speaks quietly into a telephone transmitter strapped to his chest. A plotter—who may be standing nearby, or in a control center miles away—immediately posts the information on a large data board. The data board is transparent, and the plotter often stands behind it, writing backwards, in order to save precious time and to prevent interference with others in the center.

Data from the Civil Aeronautics Administration's Air Traffic Control system, from the United States Air Force Flight Service Centers, and from other agencies, is funneled constantly into the control center. With this data at his fingertips, the controller evaluates the information reported by the radar operator. He determines that no known aircraft are in the airspace specified. The target is declared hostile. The enemy is on his way.

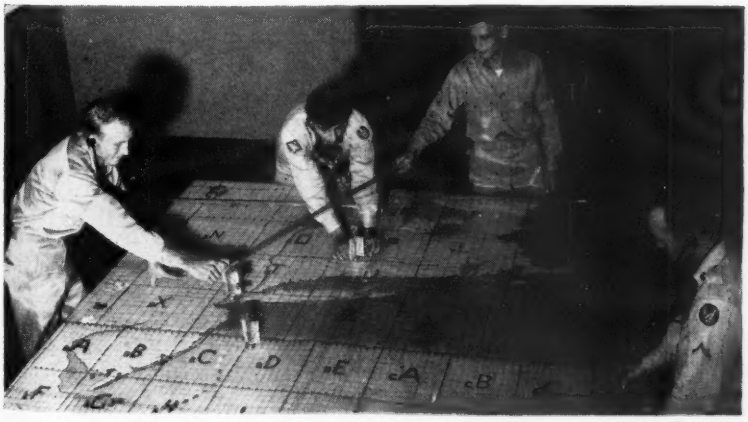
The radar operator now determines the speed and course (or track) that the hostile aircraft will follow. Etched on

the face of his cathode ray tube are lines representing a portion of the distance from the radar installation to the target. As the light signal moves across the radar scope and intersects these lines, the operator, by simple calculation, computes the speed and line of flight.

Meanwhile, other scope operators have gone into action. One special radar set scans vertically to determine the altitude of the intruder. Another radar set—of the type known in World War II as IFF (Identification, Friend or Foe)—transmits a coded wave tuned to the frequency of IFF equipment carried by friendly aircraft. If the plane carries this type equipment, a signal, identifying the plane as friendly, is transmitted automatically in reply.

As fast as the information is received at the control center, the data is plotted on a huge operations map. Thereby the controller can visualize the action as it takes place, graphically but on a smaller scale.

Some Aircraft Control and Warning Squadrons presently maintain more than one radar installation or site, in order to cover a specific area completely. For radar, like television, is limited to a direct line of sight. Supplemental installations are sometimes necessary to cover areas blocked out from the main station by physical barriers. Depending on the terrain, the invading aircraft may be kept within range for as little as fifty miles, or as much as several hundred miles. As



USAF Photo

Airmen in training plot the path of an approaching aircraft on a grid mock-up. The layout simulates an actual control board.

the aircraft moves out of range of one radar installation, it is picked up in the scopes of another.

Providing additional coverage, sky-watchers posted at visual observer stations give warning of low-level attacks—a system that proved its worth in World War II, in reporting the movements of aircraft below 5000 feet.

With the first warning—"hostile aircraft approaching"—a complex communications net crackles into action. Radio and telephone messages go out to airfields and Air Force bases. Army and Navy liaison officers at the control center alert their defense organizations; and Civil Defense personnel on duty send out a prearranged signal, notifying the civil defense organization to prepare local communities for possible attack.

The warning has been given. The next phase is to intercept the enemy force, divert it from its intended target, and destroy it, if possible.

At this point, radar—generally thought of as a purely warning and defensive instrument—takes on a new, offensive role. In a procedure born of World War II experience, radar is used not only to detect and track the enemy; it also serves to direct defending aircraft against the enemy. It was this dual role—of control coupled with air warning—that enabled the British, with a less numerous air force, to hobble, cripple, and drive the *Luftwaffe* from their skies.

The control phase begins simultaneously with the warning effort. The control center alerts a sufficient number of fighters and interceptors to meet the attack. Pilots spring into cockpits and roar down the runways. As they climb away from the air base, they begin receiving directions by radio.

A controller at the radar site speaks by radio telephone directly to the intercepting pilots. As he speaks, he follows them in the same radar scope that is tracking the invader. The defending airmen are guided meticulously through the air to a prearranged point where they can intercept the hostile planes at a tactical advantage. In bad weather or at night, radar equipped night-fighter aircraft—once they are oriented by the ground controller—are able to take over and carry on independently the tracking of enemy aircraft. This system, of directing aircraft to a known target, gives pilots and crewmen added assurance, and increases the likelihood of success in their mission.

The ground controller continues his watch as long as the intercepting aircraft and the enemy target remain in his scope.

USAF Photo

Electronic watching posts, similar to this radar antenna used in World War II, are a key link in our aircraft control and warning system.

Should the air battle move into another sector, out of range, the ground controller in the adjoining sector continues the watch from another radar installation. As the defense continues, the controller dispatches reinforcements, if needed. Should one of our flyers go down, air rescue units are advised. In a matter of seconds, rescue operations get under way.

Before he can undertake the job of spotting an airplane by radar, the operator must be thoroughly trained. Airmen assigned to the task are carefully selected, often handpicked. The ideal observer is highly intelligent, inquisitive, with an appreciation of mechanical detail—"the kind of man who hates to hear the gears grind in his automobile." His formal Air Force training consists of about six weeks at school, learning the essentials. Here he learns the principle of locating targets or objects by measuring the reflected pulses of radio images. He learns to interpret the "blips" or "presentations" as they appear on the face of the radar scope.

After his formal training, the radar operator is assigned, as an apprentice, for on-job training with an Aircraft Control and Warning station. For a period of months, he undergoes cross-training with other members of the radar team. At least a year of actual experience is necessary before he is fully at ease before a scope, capable of interpreting the seemingly numberless dots and flashes that pass before him. When fully qualified, he takes his place with the other guardians of the skies—manipulators of the electronic eyes that ceaselessly scan the Nation's approaches.

When fully operative, the Aircraft Control and Warning system will provide intensive radar coverage, nation-wide. Radar stations will be augmented by a system of civilian volunteer observers, linked by communications networks with control centers. Through this system, data from any related agencies will be channeled smoothly and quickly to control points, with all facilities coordinated into an efficient system capable of placing all available defensive weapons into immediate action.

The job of defending the Nation against aerial attack calls for the cooperation of scientist and strategist, airman and civilian. All are indispensable in the defense scheme. All must be brought to a peak of readiness, against the day when, from some isolated radar station, the alert message crackles forth.

MIDSHIPMEN AT WEST POINT

By

CAPTAIN JOSEPH F. H. CUTRONA

MIDSHIPMEN from the United States Naval Academy were a common sight at the West Point Military Reservation for a two-week period during the summer—their traditional role as men of the sea temporarily cast aside in favor of tank chauffeuring, patroling, field artillery firing, and ponton bridge building. In all, sixty-four Midshipmen participated in the joint two-week summer training program with Cadets of the United States Military Academy—receiving concentrated indoctrination in the fundamentals of fighting on land.

The tactical training program—carried on in the Camp Buckner summer training area of the Corps of Cadets—was the first of its kind. Two other joint programs are already in operation—the exchange of first classmen from the two academies in the spring of their last year, for purely academic study; and combined amphibious operations (known as CAMID) which have been conducted for four summers for students of the two academies at Little Creek, Virginia.

The Military Academy's invitation to take part in the tactical training at Buckner, prompted by a desire to foster the spirit of unification, was accepted for the Annapolis third classmen. So many volunteered that the sixty-four who finally attended had to be chosen by lot.

As a start for the experiment, the Cadets arranged, as a prank, to have the arriving Midshipmen taken to the wrong camp—an abandoned prisoner of war compound across the lake from Camp Buckner. From there, they were ferried to their proper destination on a ponton raft and were serenaded upon their arrival by the Military Academy Band. Then the

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U. S. Army Photograph

Two incoming Midshipmen are greeted by their Cadet hosts, at the beginning of two weeks of summer training at West Point.

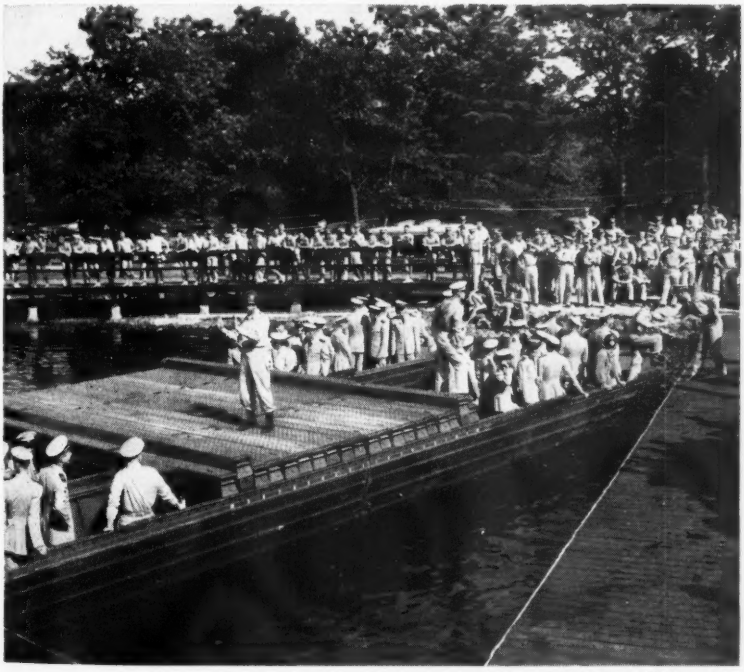
serious work began, and the Middies virtually became Cadets for the remainder of their stay.

The Midshipmen were issued the same fatigue uniforms and field equipment as their hosts used, with their attire set off by heavy field shoes, instead of the combat boots worn by the Cadets. They were assigned for training on the basis of eight to each Cadet company—one to each Cadet squad. During the field training, they followed the normal Cadet training program, participating in night marches, small arms and field artillery firing, ponton bridge building and the like.

With Cadet squad leaders and assistant squad leaders serving as guides and hosts, the visitors were made to feel at home. They entered into intramural athletics, competing as members of company teams against other Cadet companies which included their Annapolis classmates. Time was taken for a tour of the Military Academy, with an afternoon spent on the main post, visiting the Cadet barracks, academic buildings, the museum, trophy room, chapel, library, stadium, and other points of interest. Off-duty, there was swimming and canoeing

on Lake Popolopen, and several picnics were held. At the two Saturday night dances, it was not unusual to find Midshipmen standing in the Cadet stag line, waiting to cut in on Cadet dates —and Cadets did not hesitate to cut in on the Midshipmen. Dates for the Midshipmen were arranged by the Cadet hostess.

In the barracks, after a hard day's training in the field, Midshipmen and Cadets exchanged views and formed lasting friendships. Each group felt that it had gained invaluable insight into the other's professional life. While Midshipmen discovered that life at West Point is, in general, similar to that at Annapolis, they found some of the details hard to assimilate. The field pack which the Middies were issued, for example, proved to be a puzzle to some. Surveying the equipment spread on his bunk—rifle, mess kit, combat pack, field bayonet, scabbard, blankets, sheets, pillow case and pillow—one Midshipman ruefully remarked, "In the Navy, we just carry a sea bag aboard ship, and that's that . . ." His cross education was well under way.



U. S. Army Photograph

The end of the Middies' "sea voyage" across Lake Popolopen is marked by a rousing reception by the Cadets at Camp Buckner.

INTERPRETING OFFICER EFFICIENCY REPORTS

By

D. E. BAIER

HOW successful is the new Army efficiency rating form in measuring an officer's caliber of performance? What do the scores mean? How are efficiency ratings used in selecting officers for new assignments or for promotion? Before these questions can be answered, some of the difficulties in getting a true or valid efficiency rating on an Army officer should be considered.

The rater, first of all, is the foundation of any rating system. As a human being, he has his prejudices, biases, and eccentricities; and his personal standards of efficiency may differ from those of the next officer. Any efficiency report form provides an accurate evaluation only to the extent that it corrects such individual idiosyncrasies in the rater.

Under the old rating system, with a numerical scale ranging from —4.0 to +7.0, the varying standards of raters were apparent. A lieutenant colonel who was rated 6.7 was, in effect, placed among the top five per cent of lieutenant colonels. Another rater, intending also to give a high relative standing, might rate the same officer 6.0, not realizing that this placed him approximately in the middle of all lieutenant colonels. Under the old rating system, some rating officers said: "All my officers are Superior. If they weren't I wouldn't have them around." Others said: "Very few men are Superior. I cannot honestly say that more than one or two of my officers are better than Excellent."

Nor are rating officers always able to discriminate among the various shades of difference in officer competence. They are apt to feel that most of their subordinates are doing an excellent job. But on the Department of Army level, it is

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often necessary to make fine differentiations—for example, when a small number of officers must be selected from a large field of candidates for enrollment in the Command and General Staff College. An efficiency rating form, therefore, should help the rating officer make such fine distinctions among the officers he rates.

Some rating officers, knowing that ratings will be used for administrative actions, are reluctant to hurt their subordinates' chances for the better assignments and for advanced military training. They are, therefore, prone to give the officer the benefit of the doubt. Under the old system, the rating officer knew the administrative significance of the adjective ratings which he gave, and could control the rating. Ratings, therefore, often reflected the rating officer's wishes, rather than indicating actual efficiency—and the purpose of the efficiency rating was largely defeated.

OFFICER RATINGS IN RELATION TO TRUE EFFICIENCY

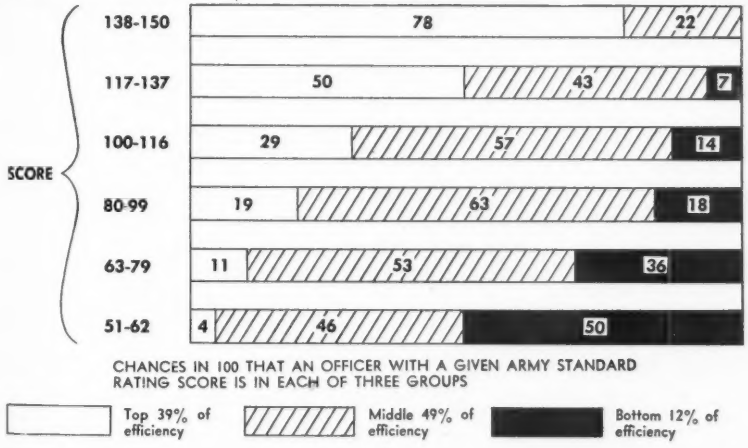

FIGURE 1

If an officer has a score on one efficiency report of anywhere from 138 to 150 (see above), there are about 78 chances out of a hundred that he is really in the top 39 per cent; 22 chances out of a hundred that he is in the middle 49 per cent of true ability; and no chance at all of his being in the bottom 12 per cent of true ability. Likewise, if an officer has a low score—say from 51 to 62—the chances are about even that he is really in the bottom 12 per cent of true ability; about 46 chances out of hundred of being in the middle 49 per cent; and a very small chance that he is really in the top 39 per cent of officers in true efficiency. The remainder of the chart can be interpreted along similar lines.

How successful is the new form in measuring an officer's caliber of performance? A study of the reports rendered on nearly 2000 Regular Army officers, during the first year and a half of operation under Form 67-1, indicates that the new form provides a truer evaluation of performance than did the old one. This finding confirms the results obtained during the extensive try-outs which preceded the introduction of the new form.

In these extensive preliminary try-outs, the average of all confidential ratings given to an officer by his associates—on a 20-point rating scale—was the criterion against which the scores on his official efficiency ratings were evaluated. Using the same criterion, the results of operational use show that ratings on the new form are at least 15 to 30 per cent more accurate than ratings on the old form. Through further research with new types of efficiency ratings, it is believed that still greater improvement can be made.

Using the extensive field tests as a standard, and applying this standard to the Army as a whole:

(1) The top 39 per cent of all officers would be characterized as "a distinct asset; hard to replace," or "one of the very few most outstanding officers."

(2) The middle 49 per cent would be characterized as in the top half of the "average or better" group.

(3) The bottom 12 per cent would be characterized as either in the bottom portion of the "average or better" group, or "not better than average; could be easily replaced."

Figure 1 shows how the efficiency report scores indicate the placement of officers with respect to this standard.

Personnel agencies at Department of the Army level, such as the Career Management Group and the promotion boards, are aware that care must be exercised in evaluating a single low report. The possibility that a really fine officer will be rated low by some rating officer who is prejudiced against him, and that a poor officer will be rated very high by some rating officer who is biased in his favor, is greatly reduced by the use of the new report. Until some means is found of further reducing rater bias and eliminating the effects of varying standards in raters, no type of efficiency report will be entirely free of this kind of error. In evaluating an officer's worth, consideration must be given not only to the general trend of all available efficiency reports, but also to a considerable mass of information external to efficiency reports, such

as awards and decorations, letters in the 201 files, and other material.

In the Adjutant General's Office, the efficiency reports are scored with extreme care and accuracy. The raw score on each report is then converted to a score on a scale which ranges from 51 to 150. This scale is called the Army Standard Rating Scale, or ASR. Scores stated in terms of the Standard Rating Scale have relatively the same constant meaning, even though the form of the report and the method of scoring may change. Thus, a score of 120, for example, will mean the same thing three years from now—when we will probably have a quite different efficiency report.

The ASR shows the relative placement of the officer with respect to the efficiency ratings of all other officers. The interpretation of a score is best made by noting what proportion of scores are above it and what proportion of scores are below it. (See Figure 2.) It is not possible to determine, with any confidence, the exact point at which an officer may be said

DISTRIBUTION OF STANDARD SCORES ON OFFICER EFFICIENCY REPORT

Form 67-1

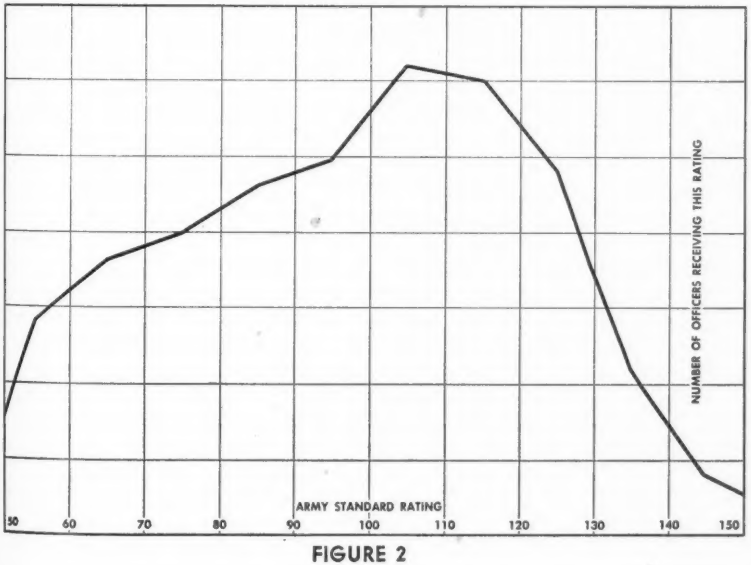

FIGURE 2

to be successful, and below which he is unsuccessful. "Success" is a relative term.

Many questions have been raised about the relevance and validity of the forced-choice sections of the report—Sections IV and VI. Generally speaking, two of each block of four phrases appear to represent favorable statements about the officer, and two of the four phrases appear to be unfavorable statements about the officer. The rating officer is forced to choose which one of the four phrases is most applicable to the officer, and which one is least applicable to the officer. The forced-choice sections should be regarded as a protection to the rated officer against undue variation in the standards of the rating officer. Obviously, the rating officer can directly control his rating on the graphic scales of Section V and VII. He cannot, however, directly control his rating on the forced-choice sections, except within rather wide limits. Again and again, the data have proved that the forced-choice items and the graphic scales, combined, yield a more valid or truer rating than do graphic scales alone. Apparently this is because the forced-choice sections require the rating officer to consider carefully the various detailed characteristics of the officer rated and thus to arrive at a more studied appraisal of him when filling out the graphic scales.

The current Form 67-1 is only the first of a series of new efficiency reports which undoubtedly will be published over the next few years. Some of its minor defects are soon to be corrected in a revised form. As time goes on, further research will make possible the development of still more accurate rating forms.

The new Form 67-1, with its Army Standard Rating Scale, facilitates the evaluation of officer performance on a scientific basis. For the Army, it assures improved assessment of the job performance and of the overall effectiveness of each officer. For the individual officer, it increases the likelihood of an assignment commensurate with his demonstrated ability—leading to greater satisfaction in his job.

AID

DIGEST OF LEGISLATION

Prepared for The DIGEST by Joseph M. Howorth,
Legislative and Liaison Division, Department of the Army

¶*Central Intelligence Agency Act of 1949. (Public Law 110—81st Congress)*

Authorizes procurement, travel, allowances, and related expenses necessary for the operation of the Central Intelligence Agency. Exempts the Agency from provisions of law requiring the disclosure of organization and functions, and the names, official titles, salaries, or numbers of personnel employed. Also exempts the Agency from provisions of law and regulations relating to the expenditure of Government funds; instead, expenditures of a confidential, extraordinary or emergency nature are to be accounted for solely on certification by the Director. Authorizes the Director to fix the salaries of not more than three especially qualified professional and scientific personnel at a rate not less than $10,000 and not more than $15,000 a year. Authorizes the assignment of officers or employees of the Agency for special instruction, research, or training at public or private institutions (domestic or foreign) including courses or training programs under the National Military Establishment (Defense Establishment). Also provides that, whenever the CIA Director, the Attorney General, and the Commissioner of Immigration shall determine that the entry of a particular alien is in the interest of national security or essential to the national intelligence mission, such alien and his or her immediate family shall be admitted to the United States for permanent residence without regard to immigration laws—the number of such aliens and their immediate families not to exceed 100 persons in any one fiscal year.

¶*Procurement, Utilization, and Disposal of Government Property. (Public Law 152—81st Congress)*

Integrates and centralizes responsibility for procurement, utilization, disposal, and records management of Government property, by creating a General Services Administration, to include: the Public Buildings Administration, the Public Roads Administration, and all other constituents of the Federal Works Agency; the Bureau of Federal Supply; the Office of Contract Settlement; the National Archives Establishment; and the War Assets Administration.

Provides for a uniform system of Government procurement, but authorizes the Secretary of Defense (unless the President shall otherwise direct) to except the National Military Establishment in the interests of national security. Requires executive agencies to maintain adequate inventory controls and accountability systems. Provides for interagency transfers of excess property. (In the Defense Establishment, permits transfer of excess property among the Departments.)

Among the agencies and programs specifically exempted from the provisions of the Act are: foreign aid; stockpiling of critical materials; the Atomic Energy Commission; the Civil Aeronautics Administration; the Central Intelligence Agency; the National Military (Defense) Establishment with respect to property required for or located in occupied countries; any executive agency named in the Armed Services Procurement Act of 1947; the Secretary of Defense, with respect to the administration of the National Industrial Reserve Act. (*Note:* The Secretary of Defense has appointed Rear Admiral Morton L. Ring, former chairman of the Procurement Policy Council, Munitions Board, to represent the Defense Establishment in determining—along with representatives of the GSA and the Bureau of the Budget—the extent to which the Defense Establishment should be exempt from the jurisdiction of the General Services Administration.)

¶*Adjustments on the Promotion List of the Medical Service Corps. (Public Law 173—81st Congress)*

Authorizes the adjustment of names on the permanent promotion list within the Medical Service Corps of the Army, so as to establish a precedence among officers based on the total amount of

service creditable to them for promotion purposes.

¶*Berlin Airlift Medal. (Public Law 178—81st Congress)*

Authorizes a Medal for Humane Action, to be given, at the discretion of the President, to persons who carried the Berlin Airlift through to completion. Any commissioned officer or any enlisted man or woman who served with the Airlift is eligible for consideration. Provision is made for awarding the medal on a posthumous basis to those qualified.

¶*Loan of Property to National Veterans' Organizations. (Public Law 193—81st Congress)*

Authorizes the Secretaries of the Army, Navy, and Air Force, at their discretion, to lend recognized national veterans' organizations such items as cots, blankets, pillows, unoccupied barracks, and other available equipment, for organizational use at national or state conventions, or at national youth athletic or recreation tournaments.

¶*Military Housing Insurance. (Public Law 211—81st Congress)*

Further amends the National Housing Act by creating a Military Housing Insurance Fund to encourage construction of rental housing in areas adjacent to Army, Navy, Marine Corps, and Air Force installations. Authorizes the Federal Housing Administration to insure mortgages for the private construction of rental housing—to be used by civilian or military personnel of the Army, Navy, Marine Corps, or Air Force (including Government contractors' employees)—in an aggregate amount not to exceed $500,000,000. The President, by Executive Order, may increase the aggregate amount to not to exceed $1,000,000,000.

Places a limitation of $5,000,000 on the principal obligation of each mortgage, with the principal obligation in each case limited to 90 per cent of the estimated replacement cost of the property or project, when completed. The mortgage on each family unit is limited to an average of $8100, except that the principal obligation on single-family detached dwellings may not exceed $9000 for each family unit.

Authorizes the Secretaries of the Army, Navy, or Air Force to lease or sell real property under their jurisdiction to implement the terms of the Act. The Secretary of Defense must certify to the Federal Housing Administration Commissioner that the housing for which mortgages will be insured is necessary to provide adequate housing for Armed Forces military and civilian personnel; that such installation is deemed to be a permanent part of the Military Establishment; and that there is no intention to curtail activities substantially at such station.

¶*National Security Act Amendments of 1949. (Public Law 216—81st Congress)*

For a synopsis of the provisions of Public Law 216, see the September 1949 DIGEST, page 59.

¶*Free Importation of Gifts from Members of the Armed Forces on Foreign Duty. (Public Law 241—81st Congress)*

Extends for an additional two years, until 1 July 1951, the existing privilege of free importation into the United States of bona fide gifts, not exceeding $50 in value, from members of the Armed Forces on foreign duty.

¶*To Amend the Army and Air Force Vitalization and Retirement Equalization Act. (Public Law 297—81st Congress)*

Establishes 1 July 1949 as the effective date on which reservists must begin to earn 50 points credit annually in order to qualify for retirement benefits under title III of the Army and Air Force Vitalization and Retirement Equalization Act of 1948 (PL 810—80th Congress).

BACK ISSUES WANTED

Readers possessing the following back issues of The DIGEST are requested to forward them (if no longer needed) to The DIGEST: January, February and March 1948; and February 1949. Address the Editor, ARMY INFORMATION DIGEST, Carlisle Barracks, Pa.